Curriculum Map- Maths Year 4

Subject - Maths					
		Learning Objectives	**Knowledge Expectations**	**Vocabulary Expectations**	**Links to prior/post learning**
Y4	**Chapter 1-** **Numbers to 10 000**	To count in hundreds and twenty-fives. To count in thousands. To count in thousands, hundreds, tens and ones. To use an understanding of place value to count. To understand place value in a 4-digit number. To compare and order numbers. To compare and order 4-digit numbers. To make number patterns (100, 10, 1 more and less). To make number patterns (4-digit numbers). To count in sixes, sevens and nines. To round numbers to the nearest 1000. To round numbers to the nearest 10, 100 and 1000.	To know 2 or more sets of objects can be compared using <>= To know 'whole' in the entire number To know that numbers can be partition into different 'parts' To know there is a set counting sequence for numbers beyond 20 To know objects can be counted by making groups of 10 To know each number on the number line has a unique position To know each two-digit number can be partitioned into a 10s part and a ones part To know each three-digit number can be partitioned into a 100s part, 10s part and a ones part To know that each four-digit number can be partitioned into a 1000 part, 100s part, 10s part and 1s part To know that each five digit number can be portioned into a 10 000 part,	number numeral zero one, two, three … twenty teens numbers, eleven, twelve … twenty twenty-one, twenty-two … one hundred, two hundred … one thousand … ten thousand, hundred thousand, million 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, sixes, sevens, nines, twenty-fives and so on to hundreds, thousands 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, next, consecutive > greater than < less than Roman numerals integer, positive, negative above/below zero, minus negative numbers Place value 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,	Year 3: To learn to count in hundreds and understand the place value. To compose and decompose numbers consisting of hundreds, tens and ones. To understand the value of each digit in a 3-digit number. To be able to compare and order numbers. To be able to count in fifties. To recognise, describe and continue a number pattern. To be able to recognise, describe and complete more complicated number patterns. To be able to count in fours and eights. Year 5: To read and represent numbers to 100 000. To read and represent numbers to 1 000 000. To read and represent numbers to 1 000 000 using number discs. To compare numbers to 1 000 000 using place value.

Curriculum Map- Maths Year 4

		To round numbers to estimate. To round numbers to estimate	1 000 part, 100 part, 10 part and 1 part. To understand the 100s, 10s and ones structure of 3 digit numbers can be used to support addition To understand the 1000s, 100s, 10s and ones structure of 4 digit numbers can be used to support addition To understand the 10,000s, 1,000s, 100s, 10s and ones structure of 4 digit numbers can be used to support addition To know that 0-9 can be used when writing one digit, two digit and three digit, four digit andf five digit numbers To know that numbers can be partitioned in different ways e.g. 53- 5 tens and 3 ones, 4 tens and 13 ones To know that numbers can be represented in different ways and using different manipulatives To know that counting in 50's follows a similar pattern to counting in 5s- make the number 10 times bigger	biggest, largest, greatest one more, ten more, one hundred more, one thousand more one less, ten less, one hundred less, one thousand less equal to compare order size first, second, third … twentieth twenty-first, twenty-second … last, last but on before, after next between halfway between above, below, guess how many estimate nearly roughly close to approximate, approximately about the same as just over, just under exact, exactly too many, too few enough, not enough round, nearest, round to the nearest ten, hundred, thousand round up, round down	To compare numbers to 1 000 000 using place value. To compare numbers to 1 000 000 using pictorial representations and proportionality. To compare numbers to 1 000 000 from pictorial representations, using lists and number lines. To make and identify patterns in numbers using knowledge of place value. To make number patterns that decrease in multiples of 10 000 or 100 000. To round numbers to the nearest 10 000 using number lines and bar graphs. To round numbers to the nearest 100 000 using number lines and bar graphs. To round numbers to the nearest 100, 1000, 10 000 and 100 000 using number lines.

Curriculum Map- Maths Year 4

			To know that counting in 100's follows a similar pattern to counting in 10s- make the number 10 times bigger To know that number patterns can be continued To know that when counting in 25's, you add 25 on each time To know that counting in 1,000's follows a similar pattern to counting in 1's To know there are 10 hundreds in one thousand To know that numbers can be rounded up and and down To know that if there is a 5-9 digit in the ones column, the number is rounded up to the nearest 10/100 e.g. 76 rouned to 80 To know that if there is a 0-4 digit in the ones coloumn, the number is rounded down to the nearest 10/100 e.g. 72 rounded to 70		

Curriculum Map- Maths Year 4

	Chapter 2- **Addition and Subtraction within 10 000**	To find totals and sums. To add without renaming. To add with renaming (in the ones column). To add with renaming (in tens and ones). To add with renaming (in hundreds, tens and ones). To add using mental strategies (making tens, hundreds and thousands). To add using mental strategies. To find the difference. To subtract without renaming (column subtraction). To subtract with renaming (in tens and ones). To subtract with renaming (in hundreds, tens and ones). To subtract with renaming (in hundreds, tens and ones). To subtract with renaming. To subtract using mental strategies.	To know = means the same as To know + means that you are combining two or more numbers to find a total To know that – is the inverse of + To know that + is the inverse of - To know that you can find the total by counting on To know the total is combining two or more amounts To understand that the total will be the largest number. To know that addition can be done in any order To know - means that you are finding the difference between two amounts To know that you can find the difference by counting back To know that subtraction always starts with the whole number To understand that the answer will be fewer than the whole number 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 inverse	Year 3: To understand the commutative law of addition and the corresponding addition and subtraction facts. To add a 3-digit number to a 1-digit number with no regrouping or renaming. To add a 3-digit number to a multiple of 10 (2-digit number) without regrouping or renaming. To add multiples of 100 to a 3-digit number. without regrouping or renaming. To add two 3-digit numbers without regrouping or renaming; introduction of the column method of addition. To add a 3-digit number to a 1-digit number, with renaming. To add with renaming in tens. To add two 3-digit numbers with renaming the ones. To add two 3-digit numbers with renaming the tens. To add with renaming in ones and tens. To do simple subtraction by taking away a 1-digit number from a 2-digit number without renaming. To do simple subtraction by taking away a 1-digit number from a 3-digit number without renaming. To subtract multiples of 10, up to 90, from a 3-digit number.

Curriculum Map- Maths Year 4

		To solve addition and subtraction word problems. To solve word problems (addition and subtraction). To solve multi-step word problems.	To know that when adding multiples of 100, the ones digit and tens digit stays the same To know that you will need to rename one ten into 10 ones when subtracting if the digit is smaller To know that you will need to rename one hundred into 10 tens when subtracting if the digit is smaller To know that you can add/subtract more than two numbers To know when adding/subtracting more than two numbers, use number bond facts to help. To know that the commutative law lets you swap numbers around for addition and still get the same answer To know that when subtracting multiples of 100, the ones digit and tens digit stays the same To know that when subtracting multiples of 10, the ones digit and the hundred digit stays the same To know that number families can help to solve a problem e.g. 30+70=100, 100-30=70		To subtract hundreds from a 3-digit number and to subtract multiples of 1 and 10 from a 3-digit number. To understand simple subtraction of a 3-digit number by another 3-digit number using the column method To subtract with renaming in tens and ones. To subtract with renaming hundreds. To subtract with regrouping tens and hundreds. To subtract a 3-digit number with zeros. To solve addition and subtraction problems using the bar model. To use the bar model to solve problems. To solve complicated problems involving addition and subtraction using a comparative bar model heuristic. To solve more complicated problems involving addition and subtraction using a comparative bar model heuristic. Year 5: To add using the 'counting on' strategy with concrete materials and number lines. To subtract using the 'counting backwards' strategy with concrete materials. To add numbers within 1 000 000 using rounding and concrete materials.

Curriculum Map- Maths Year 4

			To know to add the ones before tens when adding a two digit number To know to add the ones, then tens and then hundreds when adding a 3 digit number To know that difference is the result of subtracting one number from another		To use addition and subtraction to solve comparison problems with numbers to 1 000 000. To add numbers within 1 000 000 using the column method of addition. To subtract using the column method, number bonds and number discs using numbers to 1 000 000. To add and subtract using number bonds as a key strategy using numbers within 1 000 000. To consolidate and refine addition skills and place-value knowledge to solve addition problems. To subtract numbers to 1 000 000 using concrete materials, the column method and number bonds.
	Chapter 3- **Multiplication and division**	To multiply by 6. To multiply by 7. To multiply by 9. To multiply by 9 (relational understanding). To multiply by 11. To multiply by 11. To multiply by 12. To divide by 6.	To know that objects can be shared into equal groups To know that the groups can look different, but still have the same amount To know that doubling is the same as saying two groups of the same amount To know that equal groups can be counted to find the total To know that multiplication is repeated addition and you add the same number multiple times 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, inverse square, squared cube, cubed	Year 3: To multiply by 3. To multiply by 3 using relational properties. To multiply by 4. To multiply by 4. To multiply by 4 and 8. To multiply by 8; to use commutative law to multiply. To multiply by 8.

Curriculum Map- Maths Year 4

		To divide by 7. To divide by 9. To multiply and divide by 11 and 12. To divide with remainders. To solve word problems involving multiplication and division. To solve problems involving multiplication and division. To solve multi-step problems (in the context of measures). To solve problems involving multiplication and division (all possibilities). To solve problems involving multiplication and division (multi-step). To solve problems involving multiplication and division (scaling/comparison).	To know that objects can be shared into equal groups To know that the groups can look different, but still have the same amount To know that groups can be counted in 2's, 3's, 4's, 8's 5's and 10's To know that doubling is the same as saying two groups of the same amount To know that equal groups can be counted To know that even numbers can be shared into equal groups To know that objects can be shared equally to find the total in each group To know that division will always start with whole number To know that groups need to be equal and any amount left is called the remainder To know that odd numbers can be shared into equal groups but there will be a remainder To know when you multiply by 10 you make the number 10 times bigger To know when you divide by 10, you make the number 10 times smaller		To divide by 3. To divide by 4. To find relationships between multiplication and division. To divide by 4 and 8. To solve word problems with multiplication. To solve word problems that involve division. To solve more word problems involving multiplication and division using the bar model heuristic To solve problems using a variety of strategies. Year 5: To consolidate and review multiplication; to find the result of multiplying by a number. To consolidate and review multiplication; to find the numbers we can multiply by to get a number. To define and find common factors of numbers to 100. To identify and name the prime numbers; to recognise prime numbers as numbers that only have 2 factors.

Curriculum Map- Maths Year 4

			To know that when multiplying whole by 2 it will end in 0, 2, 4, 6 or 8 To know that when multiply a whole number by 5 it will end in 0 or 5 To know when multiply a whole number by 10 it will end in a 0 To know that the commutative law lets you swap numbers around for multiplication and still get the same answer To know that sharing is when the quotient represent the number of obects in each group To know that grouping is the quotient is the number of groups To know that when multiplying, some numbers follow a pattern e.g. 11, 22, 33		To define and determine prime numbers to 100. To create and determine square and cubed numbers. To multiply 1- and 2-digit numbers by 10, 100 and 1000. To multiply 2- and 3-digit numbers by a 1-digit number using multiple strategies. To multiply 4-digit numbers by 1-digit numbers. To multiply 4-digit numbers by 1-digit numbers with regrouping, using a variety of strategies. To multiply a 4-digit number by a 1-digit number, with regrouping from the ones, tens and hundreds, using multiple methods. To multiply 2-digit numbers by 2-digit numbers using multiple methods. To multiply a 2-digit number by a 2-digit number using multiple methods, including the grid method, number bonds and column method, with regrouping. To multiply a 3-digit number by a 2-digit number, with the grid method and column method as key strategies. To multiply a 3-digit number by a 2-digit number with regrouping, using the column method as the key strategy

Curriculum Map- Maths Year 4

					To find thousands, hundreds and tens in a 4-digit number using concrete materials. To divide 3- and 4-digit numbers by 1-digit numbers, using number bonds and long division as the key methods. To divide 4-digit numbers by 1-digit numbers, using number bonds and long division as the key methods. To divide 3-digit numbers by 1-digit numbers, using long division, short division and mental methods, that give rise to remainders.
	Chapter 4- Further multiplication and division	To multiply by 0 and 1. To divide by 1. To understand commutativity. To multiply three numbers. To multiply with multiples of 10 To multiply 2-digit numbers. To multiply 2-digit numbers with renaming. To multiply multiples of 100. To multiply 3-digit numbers.	To know that objects can be shared into equal groups To know that the groups can look different, but still have the same amount To know that doubling is the same as saying two groups of the same amount To know that equal groups can be counted to find the total To know that multiplication is repeated addition and you add the same number multiple times To know multiplication can be done in any order To know that objects can be shared into equal groups	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, inverse square, squared cube, cubed	Year 3: To multiply multiples of 10 by a 1-digit number. To multiply any 2-digit number by a 1-digit number. To multiply more 2-digit numbers. To multiply with regrouping. To multiply with regrouping. To understand simple division of a 2-digit number by a 1-digit number. To divide where there is a need to regroup. To use long division to divide. To solve word problems that involve multiplication.

Curriculum Map- Maths Year 4

		To multiply 3-digit numbers (renaming). To multiply 3-digit numbers. To divide 2-digit numbers. To divide 3-digit numbers. To divide 2-digit numbers with remainders To divide 3-digit numbers. To divide 3-digit numbers with remainders To solve multiplication and division word problems. To solve multiplication and division word problems (multi-step)	To know that the groups can look different, but still have the same amount To know that groups can be counted in 2's, 3's, 4's, 8's 5's and 10's To know that doubling is the same as saying two groups of the same amount To know that equal groups can be counted To know that even numbers can be shared into equal groups To know that objects can be shared equally to find the total in each group To know that division will always start with whole number To know that groups need to be equal and any amount left is called the remainder To know that odd numbers can be shared into equal groups but there will be a remainder To know when you multiply by 10 you make the number 10 times bigger To know when you divide by 10, you make the number 10 times smaller To know that when multiplying whole by 2 it will end in 0, 2, 4, 6 or 8		To solve word problems involving division. To solve more challenging word problems. Year 5: To consolidate and review multiplication; to find the result of multiplying by a number. To consolidate and review multiplication; to find the numbers we can multiply by to get a number. To define and find common factors of numbers to 100. To identify and name the prime numbers; to recognise prime numbers as numbers that only have 2 factors. To define and determine prime numbers to 100. To create and determine square and cubed numbers. To multiply 1- and 2-digit numbers by 10, 100 and 1000. To multiply 2- and 3-digit numbers by a 1-digit number using multiple strategies. To multiply 4-digit numbers by 1-digit numbers.

Curriculum Map- Maths Year 4

			To know that when multiply a whole number by 5 it will end in 0 or 5 To know when multiply a whole number by 10 it will end in a 0 To know that the commutative law lets you swap numbers around for multiplication and still get the same answer To know that sharing is when the quotient represent the number of obects in each group To know that grouping is when the quotient is the number of groups To know that when multiplying, some numbers follow a pattern e.g. 11, 22, 33 To know that when you multiply 3 numbers, you can multiply two digits before multiplying the product by the remaining digit To know that when multiplying by a multiple of 10, you can make it ten times smaller and then multiply the product by 10 e.g 9x30 = 9x3x10 To know that numbers can be partitioned when multiplying e.g. 16x8= 10x8+6x8		To multiply 4-digit numbers by 1-digit numbers with regrouping, using a variety of strategies. To multiply a 4-digit number by a 1-digit number, with regrouping from the ones, tens and hundreds, using multiple methods. To multiply 2-digit numbers by 2-digit numbers using multiple methods. To multiply a 2-digit number by a 2-digit number using multiple methods, including the grid method, number bonds and column method, with regrouping. To multiply a 3-digit number by a 2-digit number, with the grid method and column method as key strategies. To multiply a 3-digit number by a 2-digit number with regrouping, using the column method as the key strategy To find thousands, hundreds and tens in a 4-digit number using concrete materials. To divide 3- and 4-digit numbers by 1-digit numbers, using number bonds and long division as the key methods. To divide 4-digit numbers by 1-digit numbers, using number bonds and long division as the key methods. To divide 3-digit numbers by 1-digit numbers, using long division, short division and mental methods, that give rise to remainders.

Curriculum Map- Maths Year 4

			To know that when multiplying by a multiple of 100, you can make it ten times smaller and then multiply the product by 100 e.g 600x7= 6x7x100 To know when multiplying a 3 digit number, multiply the ones, then the tens and then the hundreds To know when diving two digit numbers by one digit number, divide the tens and then the ones To know when diving three digit numbers by one digit number, divide the hundreds, tens and then the ones		
	Chapter 5- Graphs	To draw and read picture graphs and bar graphs. To draw and read bar graphs. To draw and read line graphs.	To know that graphs are used to show data To know the scales can be set in different intervals To know that graphs can be read to find out an amount To know that graphs/charts can give us information	count, tally, sort, vote survey, questionnaire, data 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 3: To construct picture graphs from a set of data; to present data with pictures that represent more than one item. To construct bar graphs from a set of data; to use proportion to reflect precise difference in quantity. To read and interpret information from a bar graph; to use and understand vocabulary related to bar graphs.

Curriculum Map- Maths Year 4

		To draw and read a line graph. To draw and read line graphs (drawing focus)	To know the names of different types of graphs/charts To know that drawings needs to be accurate when drawing a chart/graph To know that the scale has to stay the same on each graph/ chart		To read bar graphs where the scale is not a multiple of all quantities measured. To read bar graphs where the scale is made up of larger increments. Year 5: To read the information presented in a table and interpret its meaning. To read and respond to information presented in a table. To read and respond to tables that have a variety of data sets. To read and interpret information provided in a line graph where a single line represents the data. To read and interpret information presented on a line graph where the data is represented by more than one line. To read and interpret information presented on a line graph where the data is represented by more than one line. To read and interpret information presented in a table and turn it into a line graph; to determine relationships between data sets.
	Chapter 6- Fractions	To count in hundredths. To write mixed number fractions.	To know that objects can be shared into equal groups To know that 'half' means two equal parts	multiplication multiply multiplied by multiple, factor groups of times product once, twice, three times … ten times repeated addition division dividing, divide,	Year 3: To count in tenths; to recognise tenths and be able to determine how many tenths are shaded.

Curriculum Map- Maths Year 4

		To show mixed number fractions on a number line. To find equivalent fractions. To find equivalent fractions (further practise). To simplify mixed number fractions To simplify improper fractions. To add fractions. To add fractions (recording answers as a mixed number). To add fractions (simplest form). To subtract fractions. To subtract fractions (equivalence). To solve word problems.	To know that 'whole' means one part To know that 'quarter' means 4 equal parts To know that 'third' means 3 equal parts To know that all parts needs to be equal To know that doubling is the same as saying two groups of the same amount To know that halving is sharing in to two equal groups To know that fractions can be ordered To know that the numerator is the number above the line in a fraction To know that the denominator is the number below the line in a fraction To know that the numerator tells us how many part of the whole To know the denominator tells us how many pieces the whole is made up of. To know that you can find fractions of a quantity or a shape To know that there are 10 tenths in a whole To know how many halves, thirds, quarters are needed to make 1	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, inverse square, squared cube, cubed	To make number pairs to create 1; to combine fractions to make 1. To add fractions with the same denominator. To consolidate adding fractions with the same name; to learn how fractions can add to 1. To subtract fractions with the same name. To find equivalent fractions through paper folding and shading. To find equivalent fractions using paper folding and shading. To find equivalent fractions; to place fractions on a number line. To find fractions equivalent to 1 /2; to use pictorial representations and multiplication to show equivalence. To find equivalent fractions using concrete objects and pictorial representations. To find equivalent fractions using pictorial representations and multiplication. To find the simplest fraction using visualisation and concrete materials. Year 5: To divide whole numbers to create fractions; to create mixed numbers and improper fractions when dividing whole numbers.

Curriculum Map- Maths Year 4

			To know that the denominator stays the same when adding fractions (same denominator) To know that the denominator stays the same when subtracting fractions (same denominator) To know that fractions with different denominators can be the same e.g. 1/3= 2/6 To know there are 100 hundreths in a whole To know that a mixed number fraction is a whole number and a proper fraction combined To know that mixed number fractions can be shown on a number line To know that fractions can be equivalent – the numerator and denominator change To know that a fraction wall can be used to find equivalent fractions To know that multiplication and division are used when finding equivalent fractions		To write improper fractions and mixed numbers using a number line and pictorial methods. To find equivalent fractions using pictorial methods. To compare and order fractions using the pictorial method. To compare and order improper fractions using the pictorial method. To compare mixed numbers using pictorial representations; to find common denominators where one fraction is already the common denominator for all fractions in the question. To make number pairs (number bonds) with fractions with different denominators. To add unlike fractions by finding a common denominator using pictorial methods. To add unlike fractions by finding a common denominator using pictorial methods. To add together unlike fractions where the sum is greater than 1, creating mixed numbers or improper fractions. To add unlike fractions which create improper fractions and mixed numbers that give rise to simplification.

Curriculum Map- Maths Year 4

					To subtract fractions with different denominators; to subtract fractions from whole numbers. To subtract fractions where the denominators are not the same; to use bar models as a key strategy for subtracting fractions. To subtract fractions and mixed numbers from mixed numbers with different denominators. To multiply fractions by whole numbers creating other fractions, mixed numbers or improper fractions. To multiply fractions by whole numbers where the product is an improper fraction or mixed number. To multiply mixed numbers by whole numbers, creating larger mixed numbers. To multiply mixed numbers by whole numbers in multi-step word problems.
	Chapter 7- Time	To tell the time on a 24-hour clock. To convert between minutes and seconds. To convert between hours and minutes. To solve time problems.	To know that the days of the weeks/months of the year remains in the same order To know there are 60 seconds in a minute To know ther are 60 minutes in 1 hour To know that events can be ordered To know that when the minute hand is at 12 it is o'clock	Time time days of the week, Monday, Tuesday … months of the year (January, February ...) seasons: spring, summer, autumn, winter day, week, weekend, fortnight, month, year, leap year, century, millennium birthday, holiday morning, afternoon, evening, night bedtime, dinner time, playtime today, yesterday, tomorrow before, after earlier, later next,	Year 3: To use the terms 'a.m.' and 'p.m.' correctly to identify morning or afternoon/evening. To learn to tell time to the minute; to understand the relationship between the minute hand and hour hand. To consolidate and apply a variety of vocabulary used to express the time.

Curriculum Map- Maths Year 4

		To convert between units of time. To solve word problems (duration).	To know that when the minute hand is at 12 and the hour hand is pointing at a number it is _ o'clock To know that when the minute hand is at 6 it is half past To know that quicker means something is faster To know that later means that is hasn't happened yet To know the minute hand is longer than the hour hand To know there are 5 minutes between each number on the clock To know events can be timed To know you can tell the time on a digital or analogue clock To know that a.m is midnight to midday To know that pm is mid day to midnight To know there are 24 hours in a day To know that time can be measured in milliseconds To know that there are 1,000 milliseconds in a second To know the meaning of each number on an analogue clock- hour and miniutes	first, last noon, midnight calendar, date, date of birth 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 timetable, arrive, depart Roman numerals 12-hour clock time, 24-hour clock time, clockwise, anticlockwise	To compare analogue and digital time; to represent time using both analogue and digital methods. To tell time before the hour using the hour and minute hands. To learn to tell time using 24-hour notation; to use analogue time and 24-hour notation interchangeably. To tell the time on an analogue clock using Roman numerals. To measure time in seconds and milliseconds. To measure time in seconds using a stopwatch; to consolidate previous learning about seconds. To consolidate measuring time in seconds; to conduct a time experiment using seconds. To measure time in hours using an analogue clock. To consolidate the measurement of time in hours. To measure time in hours using analogue clocks and timelines; to count backwards in time by the hour. To measure the passage of time in minutes using an analogue clock and a timeline.

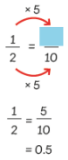
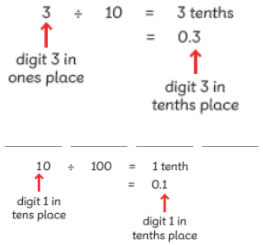
Curriculum Map- Maths Year 4

			To know that you multiply the number of minutes by 60 to find the number of seconds To know that you multiply the number of hours by 60 to find the number of minutes		To measure time to the minute when it crosses into the next hour; to use number bonds to calculate the passage of time. To measure time in minutes, counting backwards to determine the starting point; to use number bonds and timelines to calculate the passage of time. To determine how many seconds are in a minute; to use multiplication to calculate the number of seconds in a number of minutes. To convert seconds into minutes using number bonds. To calculate the number of days in a month; to learn which months have 31, 30 and 28/29 days. To find the duration of days for different activities. Year 5: To convert units of time. To convert units of time from days into weeks and months. To convert units of time. To solve problems by converting units of time. To convert units of time.

Curriculum Map- Maths Year 4

	Chapter 8- Decimals	To record tenths. To record in tenths. To record in tenths (in different ways). To write hundredths. To write hundredths. To write hundredths (in different ways). To record hundredths. To write decimal numbers. To compare and order decimal numbers. To compare and order decimal numbers. To compare and order decimal numbers. To create number sequences. To round decimal numbers. To round decimal numbers. To write fractions as decimal numbers.	To know that 1/10 is 1 of 10 equal parts To know that fractions can be represented as decimals To know that 1/10 is the same as 0.1 To kow that 0.1 is 1 tenth To know that the . is the decimal point To know that you can have a whole number and a decimal e.g. 3.2 To know tht 3.2 is three wholes and 2/10s To know we read 3.2 as three and two tenths To know that 1/100 is the same as 0.01 To know that 0.01 is 1 hundreth To know 1/100 is written as 0.01 as a decimal To know that 3.02 is three and 2 hundreths To know that we read 3.02 as three and 2 hundreths To know that 10/100 is the same as 1/10 To know that 124 hundreths is the same as 1.24 To know that place value frames can be used when ordering and comparing decimals To know that decimlas camn be rounded to the nearest whole or tenth To know that tenths less than 5 are rounded down e.g. 2.4 is rounded to 2 To know that tenths 5 or more are rounded up e.g. 2.6 is rounded to 3 To know when writing fractions as decimals you need to convert the denominator to 10 or 100	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 … hundredths decimal, decimal fraction, decimal point, decimal place, decimal equivalent proportion	Year 5: To write decimal numbers. To read and write decimals. To read and write decimals. To compare tenths and hundredths written as decimals. To order and compare decimals. To compare and order decimals of amounts. To write fractions as decimals. To add and subtract amounts in decimals. To add and subtract decimals; to add and subtract amounts in pounds and pence. To add and subtract amounts in pounds and pence. To add and subtract decimals; to add and subtract amounts in pounds and pence. To add and subtract decimals to find the smallest possible sum and difference. To add and subtract decimals; to find number pairs that add up to 1. To add and subtract the perimeter of an object using decimals.

Curriculum Map- Maths Year 4

		To divide whole numbers by 10. To divide whole numbers by 100.	 You must then multiply the numerator by the same number To know that whole numbers can be divided and the product can be shown as a decimal 		To round decimals to the nearest whole number; to round numbers to nearest tenth.
	Chapter 9- Money	To record amounts of money. To record amounts of money. To compare total amounts of money. To round to the nearest pound (whole number). To solve money problems (addition and subtraction).	To know each coin/note has a different value To know that money is used to buy items To know that items cost different amounts To know the value of each coin/note To know that coins/notes look different To know that coins and notes can be combined to make an 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 3: To consolidate previous learning about denominations of both notes and coins; to use simple addition to count amounts of money. To name amounts of money including coins above 100p; to regroup and rename 100p as £1 as a key strategy. To find multiple ways of showing an amount of money.

Curriculum Map- Maths Year 4

		To solve money problems (multiplication). To solve money problems (comparison). To estimate amounts of money	To know the £ represent a pound To know that different coins can make the same amount To know 2 or more amounts can be compared using <>= To know that change can be given when buying something To know there are 100p in £1 To know to add pence first when add £.p To know that pence can be written as a decimal e.g. 10p = £0.10 To know that £1 is the same as 10/10s To know that 1p can be written as a decimal e.g. 1p = £0.01 To know that money can be rounded (using the same skills as in decimals chapter)		To add money by adding together the pounds and pence separately. To add amounts of money together using different methods; to consolidate the addition of pounds and pence separately. To consolidate 'making a pound' as a strategy for adding amounts of money where the coins equal more than 99p To learn the 'make a pound' strategy with number bond diagrams; to consolidate the strategies associated with the addition of money. To use multiple methods for subtracting amounts of money, including concrete materials and the column method. To use visual comparison to subtract amounts of money; to consolidate column subtraction where there is no regrouping of pence required. To use number bonds to subtract amounts of money; to develop number sense through decision making. To use number bonds as the primary strategy for subtracting amounts of money; to split pounds and pence simultaneously when subtracting amounts of money. To learn the 'counting on' strategy for calculating change; to consolidate the number bonds strategy for calculating change. To solve word problems involving money using bar modelling as the key strategy; to

Curriculum Map- Maths Year 4

					learn how to use comparative models where pupils are solving by seeing the smaller amount inside of the larger amount. To use part-whole bar models to represent word problems; to apply addition and subtraction strategies to solve word problems.
	Chapter 10- **Mass, Volume and Length**	To measure mass. To measure mass. To convert units of mass. To measure volume. To measure volume. To convert units of volume. To measure height To measure length. To convert units of length. To convert units of length. To measure perimeter in centimetres and millimetres. To solve problems in measurement (reading scales).	To know that mass is the quantity of matter in an object To know that some objects are heavier/lighter than others To know that objects can be ordered based on their weight To know that scales can be used to measure the weight of an object To know that mass can be measure in g and kg To know 2 or more sets of objects can be compared using <>= To know that scales have markers to show the mass of an object To know that length is measured from end to end To know that length can be measured by different objects To know that rulers can be used to measure how long/ tall an object is	measure measurement size compare unit, standard unit metric unit measuring scale, division guess, estimate enough, not enough too much, too little too many, too few nearly, close to, about the same as, approximately roughly just over, just under, millimetre, centimetre, metre, kilometre, mile length, height, width, depth, breadth long, short, tall high, low wide, narrow thick, thin longer, shorter, taller, higher … and so on longest, shortest, tallest, highest … and so on far, ruler metre stick, tape measure, mass: big, bigger, small, smaller weight: heavy/light, heavier/lighter, heaviest/ lightest kilogram, half kilogram, gram weigh, weighs, balances heavy, light heavier than, lighter than heaviest, lightest scales, mass: big, bigger, small, smaller weight:	Year 3 To use metres and centimetres to measure objects. To write length in centimetres only by converting metres to centimetres. To convert kilometres to metres. To convert length from metres to kilometres and metres. To compare two lengths. solve measurement-related word problems. To solve other word problems. To solve word problems further, involving multiplication To solve word problems associated with length using division. To solve more challenging word problems.

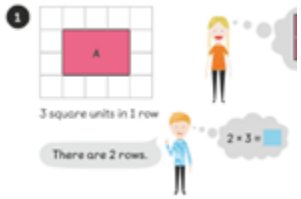
Curriculum Map- Maths Year 4

			To know that objects can be ordered from shortest to tallest To know that length can be measure in cm, m and km To know 2 or more sets of objects can be compared using <>= To know that the most effective way of measuring a line, is to make it straight To know there are 100cm in a metre To know there are 1,000m in a km To know that containers can be full, half full etc. To know that capacity is the amount something can hold To know containers can have the same/different capacity but different volumes To know that objects can be ordered based on their capacity To know that volume is the space covered by an object To know that volume is measured in ml and l To know 2 or more sets of objects can be compared using <>= To know that scales have markers to show the volume To know that 200g is the same as 0.2kg	heavy/light, heavier/lighter, heaviest/ lightest kilogram, half kilogram, gram weigh, weighs, balances heavy, light heavier than, lighter than heaviest, lightest scales	To measure mass using weighing scales and compare the mass of objects using grams and kilograms. To use weighing scales to measure mass when the mass is between multiples of 100 g. To read values on a scale which are 1 kg or more. To weigh heavier items where the markers in the scales represent 200 g each. To solve word problems relating to mass with addition and subtraction. To solve word problems relating to mass using multiplication. To solve word problems relating to mass using division To measure volume in millilitres. To measure capacity in millilitres. To measure volume using millilitres and litres. To measure volume in millilitres and litres from a 'homemade' bottle with markings. To measure volume using millilitres and litres in comparison to 1 l. To measure larger capacity in litres and millilitres.

Curriculum Map- Maths Year 4

			To know that mass can be rounded to the nearest whole To know that 1.2kg is the same as 1kg and 200g To know that 3.5kg is the same as 3 ½ kg To know that 100ml= 0.1l To know that 10ml= 0.01l To know that 152cm is the same as 1.52m To know that 10cm= 0.1m To know that 1cm = 0.01m To know that 1.2m is the same as 1m and 20cm To know that length can be rounded to the nearest whole		To solve basic word problems related to volume. To solve more word problems. To solve word problems through division. To solve two-step word problems. Year 5: To convert units of length. To convert units of length, including centimetres and metres. To convert units of length. To solve problems by converting units of length. To convert units of mass. To convert units of mass, including grams into kilograms. To convert units of mass. To convert units of mass, including kilograms and pounds.
	Chapter 11- Area of Figures	To find area (by measuring surface coverage). To measure area.	To know that figures can cover different surfaces To know that figures can look different but cover the same surface To know that figures can have the same area but different perimeters	further, furthest, near, close distance apart … between … to … from edge, perimeter area, covers square centimetre (cm2)	Year 5: To find the perimeter of shapes. To find shapes with a specific perimeter. To find the perimeter of different shapes.

Curriculum Map- Maths Year 4

		To measure area (counting squares). To measure area (counting squares and half squares). To measure area (using multiplication). To measure area (shapes in different orientations).	To know that area can be recorded as 4 units2 To know that area of rectangles can be measured by multiplying the length by the height 		To use scale diagrams to find the perimeter of a shape. To measure the area of shapes by counting squares. To measure the area of squares. To measure the area of a shape. To measure area in square metres. To measure area in square metres. To find the area of shapes in square metres. To make an estimation of area in kilometres.
	Chapter 12- Geometry	To identify types of angles. To compare angles. To classify triangles. To classify quadrilaterals. To identify symmetrical figures. To draw lines of symmetry. To draw symmetrical figures. To make symmetrical figures.	To know the name of 2d shapes- circle, square, rectangle, triangle To know that more than 2 shapes/objects can make a pattern To know that shapes can be grouped by the number of sides/corners To know that 2d shapes are flat To know that a vertices is where two sides meet To know vertices is another word for corner To know shapes are still the same shape, even after they are rotated	shape, pattern flat, line curved, straight round hollow, solid sort make, build, construct, draw, sketch perimeter centre surface, shape, pattern flat, line curved, straight round hollow, solid sort make, build, construct, draw, sketch perimeter centre surface, 2-D, two-dimensional corner, side point, pointed rectangle (including square), rectangular, oblong rectilinear circle, circular triangle, triangular equilateral triangle, isosceles triangle, scalene triangle pentagon, pentagonal hexagon, hexagonal heptagon octagon, octagonal quadrilateral parallelogram,	Year 3: To identify, define and create perpendicular lines; to find perpendicular lines in everyday objects. To identify, define and create parallel lines; to find parallel lines in everyday objects. To define and identify vertical and horizontal lines; to find vertical and horizontal lines in everyday life. To describe 2-D shapes using familiar vocabulary about lines and angles. To draw 2-D shapes in proportion to their size; to identify how big a shape is.

Curriculum Map- Maths Year 4

		To complete symmetrical figures. To sort shapes.	To know a line of symmetry is an imaginary line where you could fold the shape and both halves match To know the name of 3d shapes- spheres, cubes, cuboids and pyramids To know that more than 2 shapes/objects can make a pattern To know that shapes can be grouped by the number of vertices/edges To know that 3d shapes are solid and can be picked up To know 3d shapes faces are 2d shapes To know 3d shapes can be combined to make a structure To know that perpendicular lines meet at a 90 degree angle To know that parallel lines are lines that are the same distance apart and never meet To know that parallel lines are lines travelling in the same direction To know that a vertical line is a line that goes up and down To know that a horozontial line is a line that goes from side to side To know that some 2d shapes have parallel lines	rhombus, trapezium polygon right-angled parallel, perpendicular 3-D shape 3-D, three-dimensional face, edge, vertex, vertices cube, cuboid pyramid sphere, hemisphere, spherical cone, cylinder, cylindrical prism, triangular prism tetrahedron, polyhedron	To create 3-D shapes out of nets; to use vocabulary related to 3-D shapes and their properties. To construct 3-D shapes out of clay and discuss their properties. To describe 3-D shapes using familiar terms; to identify properties of 3-D shapes. Year 5: To know the names and qualities of acute, right, obtuse and reflex angles. To measure angles using a protractor. To draw, measure and add angles using a protractor. To measure angles using a protractor; to identify two angles which add up to 180 degrees on a straight line. To investigate angles that, when combined, make 360 degrees. To draw angles using a protractor. To draw lines and angles with a high level of accuracy. To describe the sides and angles of both rectangles and squares.

Curriculum Map- Maths Year 4

			To know that nets can make 3d shapes To know that an angle is a figure formed by two lines To know that when two lines join it creates an angle To know angles can be on the inside or outside of a shape To know that a right angle is exactly 90 degrees To know the names of different angles- right, actute, obtuse To know that the type of angle is determined by how many degrees it is To know that the number of sides a shape has, determines the number of angles To know that an acute angle is less than 90 degrees To know that an obtuse angle is more than 90 degrees but less than 180 degrees To know that a straight line is 180 degrees To know that if a triangle has three sides of different lengths it is a scalene triangle To know that if a triangle has three sides the same length it is an equilateral triangle		To investigate the angles of various quadrilaterals, including squares and rectangles. To solve problems involving angles in rectangles. To solve problems involving angles. To use our understanding of angles to solve problems. To investigate regular polygons.

Curriculum Map- Maths Year 4

			To know that if a triangle has two sides the same length, it is a isosleces triangle To know that quadrilaterals are polygons with 4 sides To know that it is possible to fold a square or rectangle in half To know that the two halves needs to be identical To know that shapes can have more than one line of symmetry To know that in a symmetrical figure, one half is a reflection of the other half To know that shapes can be sorted in different ways		
	Chapter 13- **Position and Movement**	To describe position. To describe position. To plot coordinates. To describe movements. To describe movements (coordinates).	To know that you describe the position of an object To know that the x axis is horizontal To know that the y axis is vertical To know that points on the axis are called co-ordinates To know that co-ordinates can be plotted on the axis	clockwise, anticlockwise compass point north, south, east, west, N, S, E, W north-east, north-west, south-east, south-west, NE, NW, SE, SW horizontal, vertical, diagonal translate, translation, movement slide roll turn stretch, bend whole turn, half turn, quarter turn, three-quarter turn rotate, rotation angle, is a greater/smaller angle than degree right angle acute angle obtuse angle reflection straight	Year 5: To name and plot points. To describe the position of a shape following a translation. To describe movements and reflecting shapes. To describe the movement of a 2-D shape when reflected. To reflect a shape more than once.

Curriculum Map- Maths Year 4

				line ruler, set square angle measurer, compass	
	Chapter 14- **Roman Numerals**	To write Roman numerals (to 20). To write Roman numerals to 100	To know that digits can be represented as roman numerals To know that the romans used letters to write numbers To know they used I for 1, V for 5 and X for 10 To know that I, V and X are used to make other numbers e.g. IV = 4 To know 50 is L and 100 is C	Roman numeral	Year 5: To write Roman numerals to 1000. To write numbers in their thousands in Roman numerals.