Domain		Nursery	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number –	Counting	Combine objects like stacking blocks and cups. Put objects inside others and take them out again. Take part in finger rhymes with numbers. React to changes of amount in a group of up to three items. Develop counting-like behaviour, such as making sounds, pointing or saying some numbers in sequence. Count in everyday contexts, sometimes skipping numbers – '1,2,3,5' Recite numbers past 5. Say on number for each item in order: 1,2,3,4,5.	Estimate how many objects they can see and then count them Count an irregular arrangement of objects Count confidently beyond 20, recognising the pattern of the counting system	count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens given a number, identify one more and one less	count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward	Count from 0 in multiples of 4, 8, 50 and 100; Find 10 or 100 more or less than a given number	Count backwards through zero to include negative numbers Count in multiples of 6, 7, 9, 25 and 1000 Find 1000 more or less than a given number	Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000	Use negative numbers in context, and calculate intervals across zero

	Comparing Numbers	Compare amounts, saying 'lots', 'more' or 'same'. Compare quantities using language: 'more than', 'fewer than'.	Compare sets of objects up to 10 different contexts, considering size and difference Explore and represent patterns within numbers to 10, including evens and odds, double facts and how quantities can be distributed equally.	use the language of: equal to, more than, less than (fewer), most, least	compare and order numbers from 0 up to 100; use <, > and = signs	compare and order numbers up to 1000	Order and compare numbers beyond 1000 Compare numbers with the same number of decimal places up to two decimal places (copied from Fractions)	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)	read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers)
	Identifying, Representing & Estimating Numbers	Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). Know that the last number reached when counting a small set of objects tell you how many there are in total ('cardinal principle'). Show 'finger numbers' up to 5. Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.	Estimate how many objects they can see and then counts them Subitise up to 5	identify and represent numbers using objects and pictorial representations including the number line	identify, represent and estimate numbers using different representations, including the number line	identify, represent and estimate numbers using different representations	identify, represent and estimate numbers using different Subitise up to 5 representations		

Read & write numbers (including Roman Numerals)	Experiment with their own symbols and marks as well as numerals.	Select correct numeral for 1-20 objects Records using marks they can explain			round any number to the nearest 10, 100 or 1,000 Round decimals with one decimal place to the nearest whole number (copied from Fractions)	round any number up to 1 000 000 to the nearest 10, 100, 1,000, 10,000 and 100,000 Round decimals with two decimal places to the nearest whole number and to one decimal place (copied from Fractions)	round any whole number to a required degree of accuracy Solve problems which require answers to be rounded to specified degrees of accuracy (copied from Fractions)	round any number to the nearest 10, 100 or 1,000 Round decimals with one decimal place to the nearest whole number (copied from Fractions)

Domain	Nursery	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number – number and place value – Understanding Place value		Have a deep understanding of number to 10, including composition of each number.		Recognise the place value of each digit in a two-digit number (tens, ones)	Recognise the place value of each digit in a two-digit number (tens, ones)	Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) Find the effect of dividing a one- or two- digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths (copied from Fractions)	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers) recognize and use thousandths and relate them to tenths, hundredths and decimal equivalents (copied from Fractions)	Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit (appears also in Reading and Writing Numbers) Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places (copied from Fractions)
Number – number and place value – Rounding						round any number to the nearest 10, 100 or 1 000 round decimals with one decimal place to the nearest whole number (copied from Fractions)	round any number up to 1 000 000 to the nearest 10, 100, 1 000, 10 000 and 100 000 round decimals with two decimal places to the nearest whole number and to one decimal place (copied from Fractions)	round any whole number to a required degree of accuracy solve problems which require answers to be rounded to specified degrees of accuracy (copied from Fractions)
Number – number and place value – Problem solving	Solve real world mathematical problems with numbers up to 5.	Begins to identify own problems based on own fascinations		use place value and number facts to solve problems	Solve number problems and practical problems involving these ideas.	solve number and practical problems that involve all of the above and with increasingly large positive numbers	solve number problems and practical problems that involve all of the above	solve number and practical problems that involve all of the above

Domain	Nursery	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number – number and place value Vocabulary	lots, more, same, more than, fewer than	number, subitising, sort, group, digit, one more, one less, matched, fewer, greater than, less than, equal to, most, least, fewest, smallest, greatest.	number, subitising, sort, group, digit, one more, one less, matched, fewer, greater than, less than, equal to, most, least, fewest, smallest, greatest, number line, number track, pattern, order, tens, ones, compare, 100 square, number square, place value grid, numeral, partition	tens, ones, hundreds, place value grid, partition, numeral, more, fewer, fewest, greatest, smallest, greater than, less than	thousands, hundreds, tens, ones, place value, more, less, greater than, less than, equal to, order, compare, estimate, exchange	thousands, hundreds, tens, ones, rounding, order, more than, less than, partition, numeral, nearest, distance, ascending, descending, negative, step, multiple, greater than, less than	ones, tens, hundred, thousands, ten thousands, hundred thousands, million, sequence, place value, partition, estimate, round, compare, order, equivalent, greater than, less than, convert	ten thousands, hundred thousand, millions, ten million, place value, partition, interval, estimate, compare, order, equal to, rounding, negative, positive

Domain	Nursery	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number – addition & subtraction Number bonds			represent and use number bonds and related subtraction facts within 20	recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100				
Number – addition & subtraction Mental calculation s		Automatically recall number bonds up to 5, including double facts. use language of more and fewer to compare 2 sets of objects find the total number of 2 sets of objects by counting them all is starting to find 1 more or less than a given number up to 20 using vocabulary involved with addition and subtraction records using marks they can explain	add and subtract onedigit and two-digit numbers to 20, including zero Add and subtract onedigit and two-digit numbers to 20, including zero	add and subtract numbers using concrete objects, pictorial representations, and mentally, including: * a two-digit number and ones * a two-digit number and tens * two two-digit numbers * adding three onedigit numbers add and subtract numbers using concrete objects, pictorial representations, and mentally, including: * a two-digit number and ones * a two-digit number and tens * two two-digit numbers * adding three onedigit numbers	Add and subtract numbers mentally, including: * a three-digit number and ones * a three-digit number and tens * a three-digit number and hundreds Add and subtract numbers mentally, including: * a three-digit number and ones * a three-digit number and tens * a three-digit number and hundreds		Add and subtract numbers mentally with increasingly large numbers Add and subtract numbers mentally with increasingly large numbers	{Perform mental calculations, including with mixed operations and large numbers Perform mental calculations, including with mixed operations and large numbers

Written methods			read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Mental Calculation)		add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction	add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	

Domain		Nursery	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number – addition & subtraction	Inverse, estimating and checking		Automatically recall number bonds up to 5, including double facts. use language of more and fewer to compare 2 sets of objects find the total number of 2 sets of objects by counting them all is starting to find 1 more or less than a given number up to 20 using vocabulary involved with addition and subtraction records using marks they can explain	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	estimate the answer to a calculation and use inverse operations to check answers	estimate and use inverse operations to check answers to a calculation	use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
	Problem solving			solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 ☐ - 9	solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods	solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why Solve problems involving addition, subtraction, multiplication and division
	Vocabulary		one more, one less, more, fewer, altogether, group, number sentence, take away, add, number bond, part-whole	group, part whole, plus, whole, part, number sentence, altogether, in total, add, count on, missing part, take away, subtract, count backwards, difference, in total, addition, subtraction, number bond, partwhole, fact family, tens, ones	fact family, number sentence, number bond, column, 10 more, 10 less, bar model, represent, exchange, difference, subtract, tens, ones, total	addition, subtraction, mental method, column method, exchange, estimate, approximate, multiple, digit	addition, total, more than, subtraction, less than, column method, estimate, how much, strategy, efficient, accurate, exact, diagram, fact	add, subtract, ones, tens, hundreds, thousands, ten thousands, mentally, inverse, round, estimate, distance chart	column addition, column subtraction, order of operations, brackets, inverse operation

Domain	Nursery	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number – multiplication and division Multiplication and division facts		Begins to solve problems involving doubling, halving and sharing Records using marks they can explain	count in multiples of twos, fives and tens (copied from Number and Place Value)	count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward (copied from Number and Place Value) Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers	count from 0 in multiples of 4, 8, 50 and 100 (copied from Number and Place Value) Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	count in multiples of 6, 7, 9, 25 and 1 000 (copied from Number and Place Value) Recall multiplication and division facts for multiplication tables up to 12 × 12	count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 (copied from Number and Place Value)	
Mental calculation				show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for twodigit numbers times one- digit numbers, using mental and progressing to formal written methods (appears also in Written Methods)	use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers Recognise and use factor pairs and commutativity in mental calculations (appears also in Properties of Numbers)	Multiply and divide numbers mentally drawing upon known facts Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	perform mental calculations, including with mixed operations and large numbers Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3 /8) (copied from Fractions)

Domain		Nursery	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number – multiplication and division	Written Calculation				calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs	write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for twodigit numbers times one-digit numbers, using mental and progressing to formal written methods (appears also in Mental Methods)	multiply two-digit and three-digit numbers by a one-digit number using formal written layout	Multiply numbers up to 4 digits by a oneor two- digit number using a formal written method, including long multiplication for two- digit numbers. Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context	Multiply multi-digit numbers up to 4 digits by a twodigit whole number using the formal written method of long multiplication Divide numbers up to 4-digits by a two-digit whole number using the formal written method of short division where appropriate for the context divide numbers up to 4 digits by a twodigit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context use written division methods in cases where the answer has up to two decimal places (copied from Fractions (including decimals))

Domain		Nursery/EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number – multiplication and division	Properties of Number					recognise and use factor pairs and commutativity in mental calculations (repeated)	identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers Establish whether a number up to 100 is prime and recall prime numbers up to 19 Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)	Identify common factors, common multiples and prime numbers use common factors to simplify fractions; use common multiples to express fractions in the same denomination (copied from Fractions) Calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm 3) and cubic metres (m 3), and extending to other units such as mm 3 and km 3 (copied from Measures)
	Order of operations							use their knowledge of the order of operations to carry out calculations involving the four operations
	Inverse operations				estimate the answer to a calculation and use inverse operations to check answers (copied from Addition and Subtraction)	estimate and use inverse operations to check answers to a calculation (copied from Addition and Subtraction)		use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy

Domain	Nursery	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number – multiplication and division Problem solving			solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher	solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects	solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	Solve problems involving addition, subtraction, multiplication and division Solve problems involving similar shapes where the scale factor is known or can be found (copied from Ratio and Proportion)
Vocabulary		sharing, grouping, doubling, halving	equal groups, array, row, column, double, twice, share, sharing, grouping, multiply	equal groups, share, group, multiply, multiplication, times-table, times, divide, division, odd, even	equal, multiply, divide, times-table, sharing, grouping, array, bar model, remainder, repeated addition, multiplication sentence, division statement, division fact, compare, more than, less than, greater than, equals, equally, least, most, share, partition, multi- step	multiply, divide, multiplication facts, division facts, lots of, groups of, times table, array, partition, bar model, part-whole model, remainder, factor, factor pair, commutative	prime number, composition number, square number, cube number, inverse operation, factor prime factor, multiply, divide, multiple, place value, partition, equal, remainder, total,	column multiplication, short division, long division, remainder, factor, common factor, common multiple, prime, composite, squared, cubed, multiple, estimate, long division, order of operations

Domain	Nursery	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number – Fractions including decimals and percentages – Counting in fractional steps				Pupils should count in fractions up to 10, starting from any number and using the1/2 and 2/4 equivalence on the number line (Non Statutory Guidance)	count up and down in tenths	Count up and down in hundredths		
Number – Fractions including decimals and percentages – Recognising fractions		Begin to solve problems involving doubling, halving and sharing Records using marks they can explain	Recognise, find and name a half as one of two equal parts of an object, shape or quantity Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity	Recognise, find, name and write fractions 1 / 3 , 1 / 4 , 2 / 4 and 3 / 4 of a length, shape, set of objects or quantity	recognise, find and write fractions of a discrete set of objects: unit fractions and nonunit fractions with small denominators Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10. Recognise and use fractions as numbers: unit fractions and nonunit fractions with small denominators	recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten	recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents (appears also in Equivalence)	recognise, find and name a half as one of two equal parts of an object, shape or quantity

Comparing fractions		compare and order unit fractions, and fractions with the same denominators		compare and order fractions whose denominators are all multiples of the same number	compare and order fractions, including fractions >1

Domain		Nursery/EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number – Fractions including decimals and percentages	Comparing decimals					compare numbers with the same number of decimal places up to two decimal places	read, write, order and compare numbers with up to three decimal places	identify the value of each digit in numbers given to three decimal places
	Rounding including decimals					round decimals with one decimal place to the nearest whole number	round decimals with two decimal places to the nearest whole number and to one decimal place	solve problems which require answers to be rounded to specified degrees of accuracy
	Equivalence			write simple fractions e.g. 1 / 2 of 6 = 3 and recognise the equivalence of 2 / 4 and 1 / 2 .	recognise and show, using diagrams, equivalent fractions with small denominators	Recognise and show, using diagrams, families of common equivalent fractions Recognise and write decimal equivalents of any number of tenths or hundredths	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths Read and write decimal numbers as fractions (e.g. 0.71 = 71 / 100) Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3 / 8

Domain		Nursery/EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number – Fractions including decimals and percentages	Adding and subtracting fractions				add and subtract fractions with the same denominator within one whole (e.g. 5 / 7 + 1 / 7 = 6 / 7)	add and subtract fractions with the same denominator	Add and subtract fractions with the same denominator and multiples of the same number Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. 2 / 5 + 4 / 5 = 6 / 5 = 1 1 / 5)	add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
	Multiplication and division of fractions						multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. 1 / 4 × 1 / 2 = 1 / 8) Multiply one-digit numbers with up to two decimal places by whole numbers

Domain	Nursery/EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number – Fractions including decimals and percentages Multiplication and division of decimals					find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths		Multiply one-digit numbers with up to two decimal places by whole numbers Multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3 /8) Use written division methods in cases where the answer has up to two decimal places
Problem solving			solve problems that involve all of the above	Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number Solve simple measure and money problems involving fractions and decimals to two decimal places	Solve problems involving numbers up to three decimal places Solve problems which require knowing percentage and decimal equivalents of 1 / 2 , 1 / 4 , 1 / 5 , 2 / 5 , 4 / 5 and those with a denominator of a multiple of 10 or 25.		

Domain	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Vocabulary	half, quarter, parts of a whole,	Fraction, half, halves, quarter, parts of a whole, equal parts	Fraction, half, halves, quarter, parts of a whole, equal parts, whole, third, numerator, denominator, fraction bar, nonunit fraction, unit fraction, equal, three quarters	Equal parts, whole, unit fraction, equation, integer, non-unit fraction, numerator, denominator, represent, share, group, mixed number, whole number, divide, set of objects, multiply, tenth, interval, equivalent, equivalent fraction, compare, add, subtract, fraction, whole, greater than, less than, equal to, divide, difference, inequality statement	Tenths, hundredths, simplify, equivalent, numerator, denominator, fraction, mixed number, add, subtract, fractions of an amount, improper fraction, simplest fraction Tens, ones, decimal point, tenths, hundredths, greater than, equivalent, less than, decimal, 0.1, 0.01, whole number, equal order, compare, convert, decimal place, ascending, descending	Equivalent, numerator, denominator, whole, fraction, simplify, expand, division, improper, mixed number, convert, sequence, order, greater than, less than, equal to, proper fraction, improper fraction, efficient, common denominator, equal parts, divide, multiply, fractions of an amount, operator Decimal, decimal place, tenth, hundredths, thousandths, decimal point, place value, digit, fraction, add, subtract, multiply, divide, whole, column, exchange, per cent, percentages	Numerator, denominator, common denominator, common factor, equivalent, simplify, simplest form, factor, whole number, mixed number, highest common factor, lowest common multiple, compare, order, ascending, descending, proper fraction, improper fraction, mixed number, convert, lowest common denominator Per cent, percentages, part, whole, decimal, fraction, divide, share, multiply, convert, compare, order, equivalent fraction, simplify, less than, more than Multiply, divide, decimal, decimal place, recurring decimal, placeholder, place value, tenth, hundredth, thousandth, product, fraction

Domain	Nursery	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement Comparing and estimating	Climb and squeeze themselves into different types of spaces. Build with a range of resources. Complete inset puzzles. Compare sizes, weights etc using gesture and language ' 'bigger/little/smaller', 'high/low', 'tall', 'heavy'	Orders 2 or 3 items by length or height Order 2 items by weight or capacity	Compare, describe and solve practical problems for: * lengths and heights [e.g. long/short, longer/shorter, tall/short, double/half] * mass/weight [e.g. heavy/light, heavier than, lighter than] * capacity and volume [e.g. full/empty, more than, less than, half, half full, quarter] * time [e.g. quicker, slower, earlier, later] Sequence events in chronological order using language [e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]	Compare and order lengths, mass, volume/capacity and record the results using >, < and = Compare and sequence intervals of time	Compare durations of events, for example to calculate the time taken by particular events or tasks Time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight (appears also in telling the time)	Estimate, compare and calculate different measures, including money in pounds and pence (also included in measuring)	Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm 2) and square metres (m 2) and estimate the area of irregular shapes (also included in measuring) Estimate volume (e.g. using 1 cm3 blocks to build cubes and cuboids) and capacity (e.g. using water)	calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm 3) and cubic metres (m 3), and extending to other units such as mm 3 and km 3 .

Measuring and calculating		Uses everyday language to talk about size, weight, capacity, distance, time and money to solve problems	measure and begin to record the following: * lengths and heights * mass/weight * capacity and volume * time (hours, minutes, seconds)	choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°c); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) Measure the perimeter of simple 2-d shapes	Estimate, compare and calculate different measures, including money in pounds and pence (appears also in comparing) Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling. Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate (appears also in converting) Recognise that shapes with the same areas can have different perimeters and vice versa

Domain		Nursery/EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement	Measuring and calculating		recognise and know the value of different denominations of coins and notes	Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value Find different combinations of coins that equal the same amounts of money Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change	Add and subtract amounts of money to give change, using both £ and p in practical contexts	Find the area of rectilinear shapes by counting squares	Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm 2) and square metres (m 2) and estimate the area of irregular shapes recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) (copied from multiplication and division)	Calculate the area of parallelograms and triangles Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm 3) and cubic metres (m 3), and extending to other units [e.g. mm 3 and km 3]. Recognise when it is possible to use formulae for area and volume of shapes Calculate the area of parallelograms and triangles Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm 3) and cubic metres (m 3), and extending to other units [e.g. mm 3 and km 3]. Recognise when it is possible to use formulae for area and volume of shapes

Domain	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement – Telling the time	Orders and sequences familiar events	Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. Recognise and use language relating to dates, including days of the week, weeks, months and years	Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times Know the number of minutes in an hour and the number of hours in a day. (appears also in converting)	tell and write the time from an analogue clock, including using roman numerals from i to xii, and 12- hour and 24-hour clocks Record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight (appears also in comparing and estimating)	Read, write and convert time between analogue and digital 12 and 24-hour clocks (appears also in converting) Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (appears also in converting)	solve problems involving converting between units of time	
Measurement – Converting		Know the number of minutes in an hour and the number of hours in a day. (appears also in telling the time)	Know the number of seconds in a minute and the number of days in each month, year and leap year	Convert between different units of measure (e.g. kilometre to metre; hour to minute) Read, write and convert time between analogue and digital 12 and 24-hour clocks (appears also in converting) Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (appears also in telling the time)	Convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) Solve problems involving converting between units of time Understand and use equivalences between metric units and common imperial units such as inches, pounds and pints	use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate (appears also in measuring and calculating) Convert between miles and kilometres	know the number of minutes in an hour and the number of hours in a day. (appears also in telling the time)

Domain		EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement	Vocabulary	long, longer, short, tall, tallest, tallest, length, height, compare, measure, full, empty, days of the week, morning, afternoon, evening, night, before, after, next, last, clock, watch, money, pound, pence, coin, note	long, longer, longest, short, shorter, shortest, tall, taller, tallest, length, height, compare, measure, distance, ruler, centimetre pound, pence, coin, note heavier, heaviest, lighter, capacity, balance scales, full, empty, weight, weigh, balanced, estimate before, after, yesterday, today, tomorrow, day, week, lower, faster, month, year, calendar, date, minute hand, hour hand, o'clock, half past, second, minute, hour	length, centimetre, metre, longer, shorter, metre stick, height, width, compare, distance pound, pence, coin, note, change, £ mass, balance, weighing scales, capacity, estimate, approximation, gram, kilogram, litre, millilitre, volume, temperature, thermometer, degrees Celsius, heavier than, lighter than, hundreds o'clock, half past, minute hand, hour hand, duration, quarter past, quarter to	length, height, width, perimeter, distance, centimetre, millimetre, metre, unit of measurement, measure, add, subtract, multiply, equivalent, convert, greater than, less than, ruler, metre stick pound, pence, convert, total, difference, change mass, weight, measure, scale, interval, gram, kilogram, capacity, litre, millilitre, convert month, year, midnight, midday, am, pm, duration, estimate, consecutive, hour, minute, second, past, to, start, end, digital clock, analogue clock	length, width, perimeter, distance, rectangle, square, centimetre, metre, around, rectilinear shape, kilometre, area, space, unit, least, greatest, triangle, quadrilateral, reflection, rotation, formula notes, coins, pounds, pence, add, subtract, change, round to the nearest, order, greater than, less than, cheaper, more expensive, estimate, over estimate, under estimate, notation, total convert, compare, unit of time, second, minute, hour, day, week, month, year, 12-hour, 24-hour, analogue, digital, am, pm	perimeter, distance, area, space, length, width, centimetre, square centimetre, metre, square metre, scale, compare, estimate, formula, 2d shape, brackets convert, metric unit, imperial unit, kilo, kilogram, gram, millimetre, centimetre, metre, kilometre, litre, millilitre, pound, ounce, inch, foot, yard, pint, gallon, stone, approximately volume, cube, cuboid, 3d shape, solid, capacity, calculate, estimate, unit cube, least greatest	metric, imperial, unit of measurement, gram, kilogram, pound, ounce, mass, millilitre, litre, pint, capacity, millimetre, centimetre, metre, millimetre, inch, foot, yard, mile, length, convert, conversion table, conversion graph area, volume, perimeter, parallelogram, height, enclosed, width, length, square centimetre, square metre, base, estimate, formula, compound shape, cubic centimetre, cubic metre

Domain	Nursery	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry – properties of shape Identifying shapes and their properties	Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'.	Beginning to use everyday names for 'solid' 3D shapes and 'flat 2D shapes Beginning to use everyday terms to describe shapes Select a particular named shape Explore characteristics of everyday objects and shapes Use mathematical language to describe shapes	recognise and name common 2-D and 3-D shapes, including: * 2- D shapes [e.g. rectangles (including squares), circles and triangles] * 3-D shapes [e.g. cuboids (including cubes), pyramids and spheres].	Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]		identify lines of symmetry in 2-D shapes presented in different orientations	identify 3-D shapes, including cubes and other cuboids, from 2- D representations	Recognise, describe and build simple 3-D shapes, including making nets (appears also in Drawing and Constructing) Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
Drawing & constructing	Combine shapes to make new ones – an arch, a bigger triangle, etc.				draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them	complete a simple symmetric figure with respect to a specific line of symmetry	draw given angles, and measure them in degrees (o)	draw 2-D shapes using given dimensions and angles recognise, describe and build simple 3-D shapes, including making nets (appears also in Identifying Shapes and Their Properties)
Comparing and classifying	Make comparisons between objects relating to size, length, weight and capacity. Select shapes appropriately: flat surfaces for building, a triangular prism for roof etc.			compare and sort common 2-D and 3-D shapes and everyday objects		compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes	use the properties of rectangles to deduce related facts and find missing lengths and angles Distinguish between regular and irregular polygons based on reasoning about equal sides and angles	compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons

Domain		Nursery/EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry – properties of shape	Angles				Recognise angles as a property of shape or a description of a turn Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle Identify horizontal and vertical lines and pairs of perpendicular and parallel lines	Identify acute and obtuse angles and compare and order angles up to two right angles by size	know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles Identify: * angles at a point and one whole turn (total 360 o) * angles at a point on a straight line and ½ a turn (total 180 o) other multiples of 90 o	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
	Vocabulary	side, rectangle, square, triangle, circle, 2d shapes 3d shape, cube, cuboid, sphere, pyramid, cylinder, cone, 2d shape, circle, pattern, flat, curved, shape, face, edge, vertex, vertices	3d shape, cube, cuboid, sphere, pyramid, cylinder, cone, 2d shape, circle, triangle, rectangle, face, edge, vertex, vertices, pattern, repeated	quadrilateral, polygon, prism, hexagon, octagon, vertex, vertices, hemisphere, symmetry, line of symmetry, symmetrical, curved surface	right angle, obtuse, acute, parallel, perpendicular, vertical, horizontal, triangle, quadrilateral, kite, trapezium, rhombus, parallelogram, cuboid, triangular prism, squarebased pyramid, cone cylinder, edge, face, vertices, clockwise, anticlockwise	quadrilateral, triangle, regular, irregular, interior angle, angle, acute, obtuse, reflect, right angle, symmetrical, isosceles, scalene, equilateral, line of symmetry, reflective symmetry	angle, whole turn, right angle, acute angle, obtuse angle, reflex angle, degree, interior angle, orientation, clockwise, anticlockwise, parallel, perpendicular, angle, quadrilateral, view, regular, irregular, 3d shape, pyramid, sphere, cone, hexagon, pentagon, triangle, top view, plan view, side view	degree, angle, obtuse, acute, reflex, right angle, protractor, triangle, isosceles, scalene, regular, polygon, quadrilateral, parallelogram, kite, rhombus, trapezium, diameter, radius, circumference, concentric, perimeter, net, pyramid, tetrahedron, cylinder, prism, cuboid, cube, vertically opposite angles

Domain		Nursery	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry – position and direction	Position, direction and movement	Understand position through words alone – for example, 'the bag is under the table' with no pointing. Describe a familiar route. Discuss routes and locations, using words like 'in front of' and 'behind'.	use everyday language to talk about position and distance	describe position, direction and movement, including half, quarter and threequarter turns.	use mathematical vocabulary to describe position, direction and movement including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)		describe positions on a 2- D grid as coordinates in the first quadran Describe movements between positions as translations of a given unit to the left/right and up/down Plot specified points and draw sides to complete a given polygon	identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed	describe positions on the full coordinate grid (all four quadrants) Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
	Pattern	Notice patterns and arrange things in patterns. Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc. Extend and create ABAB patterns – stick, leaf, stick, leaf. Notice and correct an error in a repeating pattern. Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then'	recognise, create and describe patterns		order and arrange combinations of mathematical objects in patterns and sequences				

Vocabulary	in front of, behind, circles, rectangles, triangles, cuboids, first, then	position, left, right, forwards, backwards, above, below, top, middle, bottom, up, down, in between, over, under, direction	turn, half turn, quarter turn, three quarter turn, whole turn, position, left, right, forwards, backwards, above, below, top, middle, bottom, up, down, in between	anticlockwise, clockwise, turn, half turn, quarter turn, three quarter turn, whole turn, left, right, forwards, backwards, middle, forwards, backwards		position, horizontal, vertical, up, down, left, right, coordinates, square, rectangle, plot, vertex, vertices, point, grid	reflection, translation, vertex, vertices, coordinates, mirror line, horizontal axis, vertical axis	quadrant, four quadrants, translate, translation, x-axis, y-axis, axis, axes, horizontal, vertical, vertex, reflect, reflection.

Domain		Nursery/EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Statistics	interpreting, constructing and presenting data		interpret and construct simple pictograms, tally charts, block diagrams and simple tables Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity ask and answer questions about totalling and comparing categorical data	interpret and present data using bar charts, pictograms and tables	interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs	complete, read and interpret information in tables, including timetables	interpret and construct pie charts and line graphs and use these to solve problems	interpret and construct simple pictograms, tally charts, block diagrams and simple tables ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity ask and answer questions about totalling and comparing categorical data
	solving problems				solve one-step and two-step questions [e.g. 'how many more?' and 'how many fewer?'] using information presented in scaled bar charts and pictograms and tables.	solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	solve comparison, sum and difference problems using information presented in a line graph	solve one-step and two-step questions [e.g. 'how many more?' and 'how many fewer?'] using information presented in scaled bar charts and pictograms and tables.
	Vocabulary	count, sort, group, set, list, tally		table, block diagram, tally chart, pictogram, key	pictogram, key, bar chart, scale, vertical axis, horizontal axis, table, row, column	data, line graph, pictogram, bar chart, table, altogether, more than, greatest, smallest, continuous data, compare	graph, line graph, table, dual line graph, horizontal, vertical, two-way table, scale, axis/axes, data, plot/plotted, tallies/tally, digit	Mean, average, pie chart, segment, line graph, bar chart, percentage, fraction, data

Domain		Nursery/EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Algebra and algebraic thinking	Equations		solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ▯ 9 (copied from Addition and Subtraction) represent and use number bonds and related subtraction facts within 20 (copied from Addition and Subtraction)	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems. (copied from Addition and Subtraction) Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 (copied from Addition and Subtraction)	solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. (copied from Addition and Subtraction) Solve problems, including missing number problems, involving multiplication and division, including integer scaling (copied from Multiplication and Division)		use the properties of rectangles to deduce related facts and find missing lengths and angles (copied from Geometry: Properties of Shapes)	express missing number problems algebraically Find pairs of numbers that satisfy number sentences involving two unknowns Enumerate all possibilities of combinations of two variables
	Formulae					Perimeter can be expressed algebraically as 2(a + b) where a and b are the dimensions in the same unit. (Copied from NSG measurement)		use simple formulae recognise Recognise when it is possible to use formulae for area and volume of shapes (copied from Measurement)
	Sequences		sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening (copied from Measurement)	compare and sequence intervals of time (copied from Measurement) order and arrange combinations of mathematical objects in patterns (copied from Geometry: position and direction)				
	Vocabulary							algebra, formula, formulae, equation, unknown, variable, sequence, rule, term, substitute, expression, calculation, operation, generalise, inverse, solution

Domain		Nursery/EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Ratio and proportion	Ration and proportion							solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts solve problems involving calculation of percentages and the use of percentages for comparison. solve problems involving similar shapes where the scale factor is known or can be found solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
	Vocabulary							ratio, proportion, part, whole, scale, scale factor, notation, similar

Domain	EYFS	Key Stage 2	Key Stage 2
Cultural Understanding	When discussing numbers, children's different experience of number in a range of languages is shared with others. Children play counting games from different countries and count objects from around the world. Children look at photographs and drawings showing how a range of cultures use number, shape and pattern	Pupils begin to use number in a range of different contexts and explore number patterns from a range of cultures. By doing this they can learn to appreciate the mathematical ingenuity of other cultures.	Pupils develop an understanding of the universality of mathematics. By doing this they can learn what different cultures have contributed to the development and application of mathematics