Place value: Count

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DM 3-4 yrs .recite numbers past 5 .say one number for each item in order, up to 5 .know that the last number reached when counting a small set of objects, tells you how many there are in total ('cardinal' principle) **DM Reception** .count objects, actions and sounds .count beyond 10 **ELG** .verbally count beyond 20	.count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number .count 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 and backward	.count from 0 in multiples of 4, 8, 50 and 100 .find 10 or 100 *more* or *less* than a given number	.count in multiples of 6, 7, 9, 25 and 1,000 .count backwards through zero to include negative numbers	.count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 .count forwards and backwards with positive and negative whole numbers, including through zero	.use negative numbers in context, and calculate intervals across zero

Place value: Represent, read and write numbers (including Roman Numerals)

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DM 3-4 yrs .show finger numbers up to 5 .linking numerals and amounts up to 5 .experimenting with their own symbols and marks as well as numerals **DM Reception** .subitise (up to 5) .explore the composition of numbers to 10	.identify and represent numbers using objects and pictorial representations, including the use of number line and Rekenrek .read and write numbers to 100 in numerals .read and write numbers from 1 to 20 in numerals and words	.read and write numbers to at least 100 in numerals and in words .identify, represent and estimate numbers using different representations, including the number line and Rekenrek	.identify, represent and estimate numbers using different representations .read and write numbers up to 1,000 in numerals and in words .tell and write the time from an analogue clock, including using Roman Numerals from I to XII and 12-hour and 24-hour clocks	.identify, represent and estimate numbers using different representations .read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value	.read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit .read Roman numerals to 1,000 (M) and recognise years written in Roman numerals	.read, write, order and compare numbers up to 10,000,000 and determine the value of each digit

Place value: Use and compare

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DM 3-4 yrs .solve real-world mathematical problems with numbers up to 5 .compare quantities using language *more than* and *fewer than* **DM Reception** .link the numeral with its cardinal number value .compare numbers within and up to 10 .understand the *one more/one less than* relationship between consecutive numbers .explore the composition of numbers to 10 **ELG** .compare quantities up to 10, in different contexts, understanding *greater than, less than* and *the same*	.given a number, identify *one more* and *one less* .use the language of *equal to, more than, less than (fewer), most least*	.recognise the place value of each digit in a two-digit number (tens, ones) .compare and order numbers from 0 up to 100; use <, > and = signs	.recognise the place value of each digit in a three-digit number (hundreds, tens, ones) .compare and order numbers up to 1,000	.find 1,000 *more* or *less* than a given number .recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) .order and compare numbers beyond 1,000 .compare numbers with the same number of decimal places up to two decimal places .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	.read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit .recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	.read, write, order and compare numbers up to 10,000,000 and determine the value of each digit .identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1,000 where the answers are up to three decimal places

Place value: Problem / Rounding

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DM Reception .explore the composition of numbers to 10		.use place value and number facts to solve problems	.solve number problems and practical problems involving these ideas	.round any number to the nearest 10, 100 or 1,000 .round decimals with one decimal place to the nearest whole number .solve number and practical problems that involve all of the above and with increasingly large positive numbers	.interpret negative numbers in context .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 .solve number problems and practical problems that involve all of the above	.round any whole number to a required degree of accuracy .solve problems which require answers to be rounded to specified degrees of accuracy .use negative numbers in context, and calculate intervals across zero .solve number and practical problems that involve all of the above

Addition and subtraction: Calculations

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DM Reception .explore the composition of numbers to 10 .understand the *one more/ one less than* relationship between consecutive numbers .automatically recall number bonds for numbers 0 to 5 and some to 10	.represent and use number bonds and related subtraction facts within 20 .read, write and interpret mathematical statements involving addition (+), subtraction (-) and equal (=) signs .add and subtract one-digit and two-digit numbers to 20, including zero	.recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 .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 one-digit numbers .show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot .recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	.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 with up to three digits, using formal written methods of columnar addition and subtraction .estimate the answer to a calculation and use inverse operations to check answers	.add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate .estimate and use inverse operations to check answers to calculations	.add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) .add and subtract numbers mentally with increasingly large numbers	.perform mental calculations, including with mixed operations and large numbers .use their knowledge of the order of operations to carry out calculations involving the four operations

Addition and subtraction: Problems

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DM Reception .explore the composition of numbers to 10 .understand the *one more one less than* relationship between consecutive numbers	.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 simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change	.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	.use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy .solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why .solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equal sign	.use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy .solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why .solve problems involving addition, subtraction, multiplication and division

Multiplication and division: Recall / Use

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
ELG .explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally	.count in multiples of twos, fives and tens	.count in steps of 2, 3 and 5 from 0 and in tens from any number, forward and backward .recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers .show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	.count from 0 in multiples of 4, 8, 50 and 100 .recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	.count in multiples of 6, 7, 9, 25 and 1000 .recall multiplication and division facts for multiplication tables up to 12 ×12 .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	.count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 .multiply and divide numbers mentally drawing upon known facts .multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 .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})	.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) .identify common factors, common multiples and prime numbers .use common factors to simplify fractions .use common multiples to express fractions in the same denomination .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 such as mm^3 and km^3 .use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy

Multiplication and division: Calculations

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		.calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equal (=) signs	.write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal 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 .multiply two-digit and three-digit numbers by a one-digit number using formal written layout	.multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers .multiply and divide numbers mentally drawing upon known facts .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 and divide whole numbers and those involving decimals by 10, 100 and 1000	.multiply multi-digit numbers up to 4 digits by a two-digit 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 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 .divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context .perform mental calculations, including with mixed operations and large numbers

Multiplication and division: Problems

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	.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	.estimate the answer to a calculation and use inverse operations to check answers .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	.estimate and use inverse operations to check answers to a calculation .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 multiplication and division, including scaling by simple fractions and problems involving simple rates .solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	.solve problems involving addition, subtraction, multiplication and division .solve problems involving similar shapes where the scale factor is known or can be found .use their knowledge of the order of operations to carry out calculations involving the four operations

9

Fractions, decimals and percentages: Recognise and write; counting in fractional steps

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	.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	.count in fractions up to 10, starting from any number and using ½ and 2/4 equivalence on the number line .recognise, find, name and write fractions 1/3, ¼, 2/4 and ¾ of a length, shape, set of objects or quantity	.count up and down in tenths .recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 .recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators .recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators	.count up and down in hundredths .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 .identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths .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. $2/5 + 4/5 = 6/5 = 1\ 1/5$	

Fractions, decimals and percentages: Compare

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		.recognise the equivalence of 2/4 and ½	.recognise and show, using diagrams, equivalent fractions with small denominators .compare and order unit fractions, and fractions with the same denominators	.recognise and show, using diagrams, families of common equivalent fractions	.compare and order fractions whose denominators are all multiples of the same number	.use common factors to simplify fractions; use common multiples to express fractions in the same denomination .compare and order fractions, including fractions > 1

Fractions, decimals and percentages: Calculations

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		.write simple fractions for example, ½ of 6 = 3 and recognise the equivalence of 2/4 and ½	.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 .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	.add and subtract fractions with the same denominator and denominators that are multiples of the same number .multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	.add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions .multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. ¼ × ½ = 1/8) .multiply one-digit numbers with up to two decimal places by whole numbers .divide proper fractions by whole numbers (e.g. 1/3 ÷ 2 = 1/6) .multiply and divide numbers by 10, 100 and 1,000 where the answers are up to three decimal places .use written division methods in cases where the answer has up to two decimal places

Fractions, decimals and percentages: Solve problems

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			.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 problems involving numbers up to three decimal places	.solve problems which require answers to be rounded to specified degrees of accuracy

Decimals: Recognise, write and compare

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
				.recognise and write decimal equivalents of any number of tenths or hundredths .recognise and write decimal equivalents to ¼, ½, ¾ .round decimals with one decimal place to the nearest whole number .compare numbers with the same number of decimal places up to two decimal places	.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 .round decimals with two decimal places to the nearest whole number and to one decimal place .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

Fractions, decimals and percentages

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
				.solve simple measure and money problems involving fractions and decimals to two decimal places	.recognise the *per cent* symbol (%) and understand that *per cent* relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100 and as a decimal .solve problems which require knowing percentage and decimal equivalents of ½; ¼; 1/5; 2/5; 4/5 and those fractions with a denominator of a multiple of 10 or 25	.associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8) .recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

Ratio and proportion

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
						.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 the calculation/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

Algebra

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DM Reception .explore the composition of numbers to 10 .automatically recall number bonds for numbers 0 to 5 and some to 10 E.g. *'5 is made of 2 and… 2 and … make 5.'*	.solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 =☐ – 9 .represent and use number bonds and related subtraction facts within 20 .sequence events in chronological order using language such as: *before* and *after*, *next, first, today, yesterday, tomorrow, morning, afternoon* and *evening*	.recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems .recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 .compare and sequence intervals of time .order and arrange combinations of mathematical objects in patterns	.solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction .solve problems, including missing number problems, involving multiplication and division, including integer scaling	.perimeter can be expressed algebraically as *2(a + b)* where *a* and *b* are the dimensions in the same unit	.use the properties of rectangles to deduce related facts and find missing lengths and angles	.use simple formulae .generate and describe linear number sequences .express missing number problems algebraically .find pairs of numbers that satisfy an equation with two unknowns .enumerate all possibilities of combinations of two variables .recognise when it is possible to use formulae for area and volume of shapes

Measurement: Using measures

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DM 3-4 yrs .make comparisons between objects relating to size, length, weight and capacity **DM Reception** .compare length, weight and 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*) .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 (℃); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessel .compare and order lengths, mass, volume/capacity and record the results using >, < and =	.measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	.convert between different units of measure (e.g. kilometre to metre; hour to minute) .estimate, compare and calculate different measures	.convert between different units of metric measure .understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints .use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation, including scaling .recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})	.solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 d.p. where appropriate .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 3 d.p. .convert between miles and kilometres

Measurement: Money

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	.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	.estimate, compare and calculate different measures, including money in pounds and pence	.use all four operations to solve problems involving measure (e.g. money)	.solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate

Measurement: Time

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	.sequence events in chronological order using language (e.g. *before* and *after*, *next, first, today, yesterday, tomorrow, morning, afternoon* and *evening*) .recognise and use language relating to dates, including days of the week, weeks, months (use a calendar) and years .tell the time to the hour and half past the hour and draw the hands on a clock face to show these times	.compare and sequence intervals of time .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	.tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks .estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as *o'clock, a.m./p.m., morning, afternoon, noon* and *midnight* .know the number of seconds in a minute and the number of days in each month (use a calendar), year and leap year .compare durations of events, for example to calculate the time taken by particular events or tasks	.read, write and convert time between analogue and digital 12- and 24-hour clocks .solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days	.solve problems involving converting between units of time	.use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa

Measurement: Perimeter, area and volume

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			.measure the perimeter of simple 2-D shapes	.measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres .find the area of rectilinear shapes by counting squares	.measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres .calculate and compare the area of rectangles (including squares) and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes .estimate volume (e.g. using 1cm^3 blocks to build cubes and cuboids) and capacity (e.g. using water)	.recognise that shapes with the same areas can have different perimeters and vice versa .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 such as mm^3 and km^3

Geometry: 2-D shapes

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DM 3-4 yrs .talk about and explore 2-D shapes using informal and mathematical language: *sides, corners, straight, flat* and *round* .select shapes appropriately for building and combine shapes to make new ones **DM reception** .select, rotate and manipulate shapes to develop spatial reasoning skills .compose and decompose shapes so that children recognise that a shape can have other shapes within it	.recognise and name common 2-D shapes e.g. rectangles (including squares), circles and triangles	.identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line .identify 2-D shapes on the surface of 3-D shapes, e.g. a circle on a cylinder and a triangle on a pyramid .compare and sort common 2-D shapes and everyday objects	.draw 2-D shapes	.compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes .identify lines of symmetry in 2-D shapes presented in different orientations	.distinguish between regular and irregular polygons based on reasoning about equal sides and angles .use the properties of rectangles to deduce related facts and find missing lengths and angles	.draw 2-D shapes using given dimensions and angles .compare and classify geometric shapes based on their properties and sizes .illustrate and name parts of circles, including *radius, diameter* and *circumference* and know that *the diameter is twice the radius*

Geometry: 3-D shapes

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DM 3-4 yrs .talk about and explore 3-D shapes using informal and mathematical language: *sides, corners, straight, flat* and *round* .select shapes appropriately for building and combine shapes to make new ones	.recognise and name common 3-D shapes e.g. cuboids (including cubes), pyramids and spheres	.recognise and name common 3-D shapes, e.g. cuboids (including cubes), pyramids and spheres .compare and sort common 3-D shapes and everyday objects .identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces	.make 3-D shapes using modelling materials .recognise 3-D shapes in different orientations and describe them		.identify 3-D shapes, including cubes and other cuboids, from 2-D representations	.recognise, describe and build simple 3-D shapes, including making nets

Geometry: Angles and lines

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			.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 .identify lines of symmetry in 2-D shapes presented in different orientations .complete a simple symmetric figure with respect to a specific line of symmetry	.know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles .draw given angles, and measure them in degrees (^{0}) .identify: • angles at a point and one whole turn (total 360°) • angles at a point on a straight line and ½ a turn (total 180°) • other multiples of 90°	.find unknown angles in any triangles, quadrilaterals and regular polygons .recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles

Geometry: Position and direction

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DM 3-4 yrs .understand position through words alone and no gesture .describe a familiar route .describe routes and locations using words like: *in front of* and *behind*	.describe position, direction and movement, including *whole, half, quarter* and *three-quarter 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 quadrant .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

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
DM 3-4 yrs .talk about and identify patterns around them using language such as: *pointy, spotty, blobs, stripy* etc. . extend and create ABAB patterns .notice and correct an error in a repeating pattern (spot an extra item, then a missing item, then items swapped around) .begin to sequence real and fictional events using words such as*: first, then* etc. **DM Reception** .continue, copy and create repeating patterns	.create a describe **repeating patterns** and **growing patterns**	.order and arrange combinations of mathematical objects in patterns and sequences .work with the patterns of multiples of 2, 5 and 10 .prepare bags of 2p, 5p and 10p coins .look at the patterns of the multiples of 2, 5 and 10 on a standard 100 square and also, explore the patterns on charts of different widths (e.g. four columns wide or five wide)	.work with the patterns of multiples of 3, 4 and 8 .look at the patterns of the multiples of 3, 4 and 8 on a standard 100 square and also, explore the patterns on charts of different widths	.work with the patterns of multiples of 6, 7 and 9, 25 and 1,000 .look at the patterns of the multiples of 6, 7 and 9 and 25 on a standard 100 square .count in multiples of 6, 7, 9, 25 and 1,000	.count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 .describe the underlying relationship that gives rise to a number pattern	.generate and describe linear number sequences

Statistics: Present and interpret data

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		.interpret and construct simple pictograms, tally charts, block diagrams and simple tables	.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

Statistics: Solve statistical problems

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		.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	.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	.calculate and interpret the mean as an average