Sherard Primary School
Progression in Mathematics

Maths - Curriculum Progression

Number & Place Value

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
• 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. • Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. • Read and write numbers from 1 to 20 in numerals and words.	• Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward. • Recognise the place value of each digit in a two-digit number (tens, ones). • Identify, represent and estimate numbers using different representations, including the number line. • Compare and order numbers from 0 up to 100; use and = signs. • Read and write numbers to at least 100 in numerals and in words. • Use place value and number facts to solve problems.	• Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. • Recognise the place value of each digit in a three-digit number (hundreds, tens and ones). • Compare and order numbers up to 1000. • Identify, represent and estimate numbers using different representations. • Read and write numbers up to 1000 in numerals and in words. • Solve number problems and practical problems involving these ideas.	• Count in multiples of 6, 7, 9, 25 and 1000. • Find 1000 more or less than a given number. • Count backwards through zero to include negative numbers. • Recognise the place value of each digit in a four-digit number (THTU, HTU, TU, and U). • Order and compare numbers beyond 1000. • Identify, represent and estimate numbers using different representations. • Round any number to the nearest 10, 100 or 1000. • Solve number and practical problems that involve all of the above and with increasing large positive numbers. • 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. • Count forwards or backwards in steps of powers of 10 for any number up to 1 000 000. • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero. • Round any number up to 1000000 to the nearest 10, 100, 1000, 10000 and 100000. • Solve number problems and practical problems that involve all of the above. • Read Roman numerals to 1000 (M) and recognise years written in Roman	• Read, write, order and compare numbers up to 10000000 and determine the value of each digit. • Round any whole number to a required degree of accuracy. • Use negative numbers in context, and calculate intervals across zero. • Solve number and practical problems that involve all of the above.

Number - Addition & Subtraction

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition and Subtraction • Pupils should be taught to: read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs • Represent and use number bonds and related subtraction facts within 20 • Add and subtract one-digit and two-digit numbers to 20,including zero. • Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = [ ] - 9.	**Addition and Subtraction** • 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. • 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: *1. A two-digit number and ones* *2. A two-digit number and tens* *3. Two two-digit numbers* *4. Adding three one-digit numbers* • Show that addition of two numbers can be done in any order 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 missing number problems.	**Addition and Subtraction** • Add and subtract numbers mentally, including: *1. A three-digit number and ones* *2. A three-digit number and tens* *3. A three-digit number and hundreds* • Add and subtract numbers with up to three digits, using formal written methods of column addition and subtraction. • Estimate answers to calculations; use inverses to check. • Solve problems, including missing number problems, using number facts, place value and more complex addition and subtraction.	**Addition and Subtraction** • 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 a calculation. • Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.	**Addition and Subtraction** • Add and subtract whole numbers with more than 4 digits, including using formal methods (column addition and subtraction). • Add and subtract numbers mentally with increasingly large numbers. • Use rounding to check answers 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.	**Addition, Subtraction, Multiplication and Division** • 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. • Divide numbers up to 4 digits by a two-digit whole 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. • Identify common factors, common multiples and prime numbers. • Use their knowledge of the order of operations to carry out calculations involving the four operations. • 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. • Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.

Number - Multiplication & Division

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication and division • Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects and pictorial representations.	**Multiplication and division** • Recall and use multiplication and division facts for 2, 5 and 10 tables, including recognising odd and even numbers. • Calculate mathematical statements for multiplication and division within the multiplication tables; write them using multiplication (x), division (÷) and equals (=) signs. • Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. • Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	**Multiplication and division** • Recall and use multiplication and division facts for the 3, 4 and 8 tables. • Write and calculate statements for multiplication and division using the tables they know, (including for TU x U using mental methods) and progressing to formal written methods. • Solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which ***n*** objects are connected to ***m*** objects.	**Multiplication and division** • Recall multiplication and division facts up to 12 x 12. • Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying HTU and HTU. • 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. • 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.	**Multiplication and division** • Identify multiples and factors; find all factor pairs of a number and common factors of 2 numbers. • Know and use the vocabulary of prime numbers, prime factors and composite numbers. • Establish whether a number up to 100 is prime; recall primes up to 19. • Multiply numbers up to 4 digits by a one or two-digit number using a formal 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; interpret remainders appropriately for the context. • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. • Recognise and use square numbers and cube numbers and notation for squared (2) and cubed (3). • Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes. • Solve problems involving addition, subtraction multiplication, division and a combination of these, including understanding meaning of = sign. • Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple ratios.	**ALGEBRA** • Use simple formulae. • Generate and describe linear number sequences. • Express missing number problems algebraically. • Find pairs of numbers that satisfy number sentences involving two unknowns. • Enumerate possibilities of combinations of two variables. **RATIO 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 the 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.

Number – Fractions, Decimals and Percentages

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.	• Recognise, find, name and write fractions 1/3 1/4 2/4 and ¾ of a length, shape, set of objects or quantity. • Write simple fractions e.g. ½ of 6 = 3 and recognise the equivalence of 2/4 and 1/2.	• 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. • Recognise and show, using diagrams, equivalent fractions with small denominators. • Add and subtract fractions with the same denominator within one whole e.g. 5/7+ 1/7= 6/7. • Compare and order unit fractions, and fractions with the same denominators. • Solve problems that involve all of the above.	• Recognise and show using diagrams, families of common equivalent fractions. • Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten. • 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. • Add and subtract fractions with the same denominator. • Recognise and write decimal equivalents of any number of tenths or hundredths. • Recognise and write decimal equivalents to 1/4 1/2 ¾ • 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. • 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. • Solve simple measure and money problems involving fractions and decimals to two decimal places.	• Compare and order fractions whose denominators are all multiples of the same number. • Identify, name and write equivalent fractions of a given fraction, represented visually, including 1/10 and 1/100. • Recognise mixed numbers and improper fractions; convert from one form to the other; write mathematical statements >1 as a mixed number e.g. 2/5 + 4/5 = 6/5 = 1 1/5. • Add and subtract fractions with the same denominator and multiples of the same number. • Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. • Read and write decimal numbers as fractions e.g. 0.71 = 71/100. • Recognise and use 1/1000 and relate them to 1/10 1/100 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. • Solve problems with number to three decimal places. • Recognise the percent symbol (%) and understand that percent relates to 'the number of parts per 100', writing percentages as a fraction with denominator hundred; and as a decimal fraction. • 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.	• Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. • Compare and order including fractions > 1. • 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 x ½ = 1/8. • Divide proper fractions by whole numbers e.g. 1/3÷ 2 = 1/6. • Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8). • Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 with answers to 3 decimal places. • Multiply one-digit numbers with up to two decimal places by whole numbers. • Use written division methods where the answer has up to 2 decimal places. • Solve problems which require answers to be rounded to specified degrees of accuracy. • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.

Number – Algebra

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
•	•	•	•	•	• Use simple formulae. • Generate and describe linear number sequences. • Express missing number problems algebraically. • Find pairs of numbers that satisfy number sentences involving two unknowns. • Enumerate possibilities of combinations of two variables.

Number – Ratio and Proportion

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 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.

Measurement

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
• Compare, describe and solve practical problems for: *1. Lengths and heights e.g. long/short, longer/shorter, tall/short, double/half.* *2. Mass or weight e.g. heavy/light, heavier than, lighter than.* *3. Capacity/volume e.g. full/ empty, more than, less than, half, half full, quarter.* *4. 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). • Recognise and know the value of different denominations of coins and notes. • Sequence events in chronological order using language such as: 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 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.	• Choose and use appropriate standard units to estimate and measure: *1. Length/height in any direction (m/cm)* *2. Mass (kg/g);* *3. Temperature (°C);* *4. Capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels.* • Compare and order lengths, mass, volume / capacity and record the results using <, >and =. • 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. • 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.	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). • Measure the perimeter of simple 2D shapes. • Add and subtract amounts of money to give change, using both £ and p in practical contexts. • 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, hours and o'clock; use vocabulary such as 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, year and leap year • Compare durations of events e.g. to calculate the time taken by particular events or tasks.	• Convert between different units of measure e.g. kilometre to metre; hour to minute. • Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. • Find the area of rectilinear shapes by counting squares. • Estimate, compare and calculate different measures, including money in pounds and pence. • 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.	• Convert between different units of metric measure e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre. • Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. • 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 cuboids including cubes, and capacity e.g. using water. • Solve problems involving converting between units of time. • Use all four operations to solve problems involving measure e.g. length, mass, volume, money using decimal notation, including scaling.	• Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places 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 three decimal places. • Convert between miles and kilometres. • 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 centimetre cubed (cm^3) and cubic metres (m^3) and extending to other units e.g. mm^3 and km^3.

Geometry

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry: Properties of Shapes • Recognise and name common 2D and 3D shapes, including: 1. 2D shapes e.g. rectangles (including squares), circles and triangles. 2. 3D shapes e.g. cuboids (including cubes), pyramids and spheres. **Position and Direction** • Describe position, directions and movements, including half, quarter and three-quarter turns.	**Geometry: Properties of Shapes** • Identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line. • Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces • Identify 2D shapes on the surface of 3D shapes, [e.g. a circle on a cylinder and a triangle on a pyramid.] • Compare and sort common 2D and 3D shapes and everyday objects. **Position and Direction** • Order and arrange combinations of mathematical objects in patterns and sequences. • Use mathematical vocabulary to describe position, direction and movement (including movement in a straight line), distinguishing between rotation as a turn and in terms of right angles for quarter, half and three quarter turns (clockwise and anti-clockwise).	**Geometry: Properties of Shapes** • Draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them. • Recognise that angles are a property of shape or a description of a turn • Identify right angles and 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. **Position and Direction** • Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.	**Geometry: Properties of Shapes** • Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. • Identify acute and obtuse angles and compare and order angles up to two right angles by size. • Identify lines of symmetry in 2D shapes presented in different orientations. • Complete a simple symmetric figure with respect to a specific line of symmetry. **Position and Direction** • Describe positions on a 2D 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.	**Geometry: Properties of Shapes** • Identify 3D shapes, including cubes and other cuboids, from 2D representations. • Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. • Draw given angles, and measure them in degrees (°). • 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°. • 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. **Position and Direction** • 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.	**Geometry: Properties of Shapes** • Draw 2D shapes using given dimensions and angles. • Recognise, describe and build simple 3D shapes, including making nets. • Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons. • Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. **Position and Direction** • 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.

Statistics

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	• 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. • Solve one and two step questions (e.g. How many more? How many fewer?) using information presented in scaled bar charts and pictograms and tables.	• Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. • 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. • Complete, read and interpret information in tables, including timetables.	• Interpret and construct pie charts and line graphs and use these to solve problems. • Calculate and interpret the mean as an average.

Maths – Progression in Maths Talk

Number and Place Value

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
• Numbers: number, zero, one, two, three… to twenty and beyond , zero, ten, twenty… one hundred, none, how many…? how many times? • Counting: count, count (up) to, count on (from, to), count back (from, to), count in ones, twos…tens… • Ordinal numbers: first, second, third etc. • Place Value: units, ones, tens, digit, 'teens' • Ordering and Comparing: order, compare, before, after, next, between, more, less, many, few, one more, ten more, one less, ten less, equal to, more than, less than (fewer), most, least • Sequences: odd, even, every other • Estimating: guess how many, estimate, nearly, close to, about the same as, just over, just under, too many, too few, enough, not enough	**Consolidating Year 1, plus** • Numbers: one hundred, zero, one hundred, two hundred… one thousand, none, how many…? • Counting: count in ones, twos, threes, fours, fives, tens • Ordinal numbers: tenth…twentieth, twenty-first, twenty-second…, last, last but one • Place Value: hundreds, one-, two- or three-digit number, 'teens' number, place, place value, stands for, represents • Ordering and Comparing: size, forwards, backwards, half-way between, above, below, greatest, most, biggest, largest, greater, more, larger, bigger, least, fewest, smallest, less, fewer, smaller, one more, ten more, one less, ten less, greater than (>), less than (<), equal to (=), the same number as, as many as	**Consolidating Years 1 and 2, plus** • Numbers: • Counting: count in eights, fifties, hundreds • Ordinal numbers: • Place Value: hundreds, thousands, one-, two-, three- or 4-digit number, exchange • Ordering and Comparing: one hundred more, one hundred less • Of two objects/amounts: greater, more, larger, bigger, less, fewer, smaller • Of three or more objects/amounts: greatest, most, biggest, largest, least, fewest, smallest • Sequences: • Estimating: approximate	**Consolidating Years 1, 2 and 3, plus** • Numbers: • Counting: count in sixes, sevens, nines, thousands • Ordinal numbers: • Place Value: decimal point, decimal place, tenths, hundredths, positive, negative, above/below zero • Ordering and Comparing: one thousand more, one thousand less, round • Sequences: • Estimating: • Roman Numerals: I = one, V = five, X = ten, L = fifty, C = one hundred.	**Consolidating Years 1, 2, 3 and 4, plus** • Numbers: • Counting: count in powers of ten • Ordinal numbers: • Place Value: million, columns, place holder, approximation, sequence, term • Ordering and Comparing: • Sequences: • Estimating: • Roman Numerals: all numerals to 1000	**Consolidating Years 1, 2, 3, 4 and 5, plus** • Numbers: • Counting: • Ordinal numbers: • Place Value: • Ordering and Comparing: ascending/descending order, round to the nearest ten/hundred/thousand, integer • Sequences: • Estimating: ≈ is approximately equal to • Roman Numerals:

	• Sequences: multiple of, sequence, continue, predict • Estimating:				

Number – Addition and Subtraction

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

• Addition: add, more, and, make, sum, total, altogether, one more, two more, ten more… • Subtraction: take (away), subtract, leave, how many are left/left over? how many have gone? one less, two less… ten less… less, fewer, smaller • Difference: how many fewer is… than…? How many more to make… ? how many more is…than…? Difference between • Totals: equals, is the same as	**Consolidating Year 1, plus** • Addition: addition, plus, score, one hundred more • Subtraction: subtraction, minus • Difference: • Totals:	**Consolidating Years 1 and 2, plus** • Addition: bond • Mental strategies: partition, compensate, bridge, double, near double, one more, two more… ten more… one hundred • Subtraction: • Difference: • Totals: total, amount, value, worth • Place Value: sign, tens boundary, hundreds boundary, exchange	**Consolidating Years 1, 2 and 3, plus** • Addition: increase • Subtraction: decrease • Difference: • Totals: • Place Value:	**Consolidating Years 1, 2, 3 and 4, plus** • decomposition, exchange, approximation	**Consolidating Years 1, 2, 3, 4 and 5**

Number – Multiplication and Division

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
• Multiplication: lots of, groups of, x, multiply, array • Division: share equally, equal groups of, ÷ , divide	**Consolidating Year 1, plus** • Multiplication: times, multiplied by, multiple of, once, twice, three times… ten times…, times as (big, long, wide… and so on), repeated addition, row, column, double • Division: halve, share, one each, two each, three each…, group in pairs, threes… tens, divided by, divided into, left, left over, equals	**Consolidating Years 1 and 2, plus** • Multiplication: product • Division: equal groups of, remainder	**Consolidating Years 1, 2 and 3, plus** • Multiplication: factor • Division: quotient, divisible by, inverse	**Consolidating Years 1, 2, 3 and 4, plus** • Multiplication: common factor, factorise, common multiple, powers of ten • Division:	**Consolidating Years 1, 2, 3, 4 and 5**

Number – Fractions, Decimals and Percentages

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

• Fractions: half, halve, how many to make the whole? quarter, how many to make the whole?	**Consolidating Year 1, plus** • Fractions: part, equal parts, fraction, one whole, one half, two halves, one quarter, two… three… four quarters, one third, two thirds, three thirds	**Consolidating Years 1 and 2, plus** • Fractions: numerator, denominator	**Consolidating Years 1, 2 and 3, plus** • Fractions: eighth, third, sixth, fifth, tenth, twentieth • Decimals: decimal, tenth, hundredth, decimal, decimal fraction, decimal point, decimal place	**Consolidating Years 1, 2, 3 and 4, plus** • Fractions: vulgar fraction, equivalent fractions, mixed number; improper fraction • Decimals: thousandths, decimal equivalents	**Consolidating Years 1, 2, 3, 4 and 5, plus** • Fractions: equivalent, reduced to, cancel • Decimals: • Percentages: percentage, per cent, %

Number - Algebra

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					• term, equals, equation, balance, simultaneous, brackets, BIDMAS, inequalities, formulae, formula

Number – Ratio and Proportion

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					• Ratio: ratio, similar, congruent, out of, in to, for every • Proportion: proportion, reduction, scale factor, enlargement

Measurement

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

• General: measure, size, compare, estimate • Money: money , coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, dear, costs more, cheap, costs less, cheaper, costs the same as, how much…? How many…? Total • Time: time, Monday, Tuesday…, day, week, birthday, holiday morning, afternoon, evening, night, bedtime, dinnertime, playtime, today, yesterday, tomorrow, before, after, next, first, last, now, soon, early, late, quicker, slower, earlier, later • Length: length, height, width, long, short, tall, thick, thin, wide, narrow, longer, taller, shorter, longest, tallest, shortest, metre, ruler, metre stick • Mass: weigh, balances, heavy, light, heavier, lighter, heaviest, lightest, scales, weight • Capacity: capacity, volume, full, half full, empty, holds, container	**Consolidating Year 1, plus** • General: measuring scale, division, guess, enough, not enough, too much, too little, too many, too few, nearly, roughly, about, close to, about the same as, approximately, just over, just under • Money: £, p, bought, sold, note • Time: hour, minute, second, o'clock, half past, quarter to, quarter past, clock, watch, hands, digital/analogue clock/watch, timer, quickest, fastest, slowest, old, older, oldest, new, newer, newest • Length: depth, high, low, deep, shallow, higher, lower, highest, lowest, far, further, furthest, near, close, metre (m), centimetre (cm), ruler, metre stick, tape measure, kilometre (km) • Mass: kilogram (kg), half kilogram, gram (g) • Capacity: contains, litre (l), half-litre, millilitre (ml)	**Consolidating Years 1 and 2, plus** • General: approximately • Money: • Time: quarter to, quarter past, digital time, takes longer, takes less time, how long ago?/how long will it be to…? how long will it take to…? • Length: distance apart/between… to… from • Mass: Roman numerals • Capacity:	**Consolidating Years 1, 2 and 3, plus** • General: • Money: • Time: months of the year, seasons, fortnight, month, year, leap year, century, millennium, am, pm, timetable, arrive, depart, always, never, often, sometimes, usually • Length: breadth • Mass: • Capacity: measuring cylinder • Area and Perimeter: perimeter	**Consolidating Years 1, 2, 3 and 4, plus** • General: metric, imperial, convert, scale • Money: • Time: • Length: inch • Mass: pound • Capacity: pint • Area and Perimeter: area, square metre, m^2, square centimetre, cm^2, compound shape	**Consolidating Years 1, 2, 3, 4 and 5, plus** • General: • Money: • Time: 24-hour clock, 12- hour clock, Greenwich Mean Time, British Summer Time, International Date Line • Length: mile, yard, feet, foot, inches • Mass: tonne, ounce • Capacity: centilitre, pint, gallon • Area and Perimeter: square millimetre, mm^2

Geometry – Properties of Shapes

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
• General: shape, flat, curved, straight, round, hollow, solid, corner, face, side, edge, end • 2D Shapes: circle, triangle, square, rectangle, star, semicircle, hexagon, pentagon, octagon • 3D Shapes: cube, cuboid, pyramid, sphere, cone, cylinder • Patterns and Symmetry: sort, make, build, draw, pattern	**Consolidating Year 1, plus** • General: surface, circular, triangular, rectangular, square, pentagonal, hexagonal, octagonal, right-angled, vertex, vertices, size, bigger, larger, smaller • 2D Shapes: • 3D Shapes: prism, quadrilateral • Patterns and Symmetry: repeating pattern, symmetrical, line of symmetry, fold, match, mirror line, reflection	**Consolidating Years 1 and 2, plus** • General: right-angled, layer, diagram • 2D Shapes: • 3D Shapes: hemi-sphere • Patterns and Symmetry:	**Consolidating Years 1, 2 and 3, plus** • General: radius, diameter, regular, irregular • 2D Shapes: equilateral triangle, isosceles triangle scalene triangle, oblong, heptagon, polygon, parallelogram, rhombus, trapezium • 3D Shapes: • Patterns and Symmetry: translation	**Consolidating Years 1, 2, 3 and 4, plus** • General: parallel, perpendicular • 2D Shapes: decagon • 3D Shapes: • Patterns and Symmetry:	**Consolidating Years 1, 2, 3, 4 and 5, plus** • General: circumference, concentric, arc, net, surface, pi, congruent, intersecting, intersection, plane, concave, convex, open, closed, tangram • 2D Shapes: demi-circle • 3D Shapes: • Patterns and Symmetry:

Geometry – Position, Direction, Movement and Transformation

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
• Position: top, middle, bottom, on top of, in front of, above, between, around, near, far, close, inside, outside • Direction and Movement: up, down, forwards, backwards, left, right • Angles: turn, half turn, quarter turn, three quarter turn, clockwise, anticlockwise	**Consolidating Year 1, plus** • Position: position, pattern, repeating pattern • Direction and Movement: direction, along, through, match • Angles: movement, centre, one quarter, two… three… four quarters, one half, right angle, straight line, angle, …is a greater/smaller angle than, degree	**Consolidating Years 1 and 2, plus** • Position: opposite, apart, between, middle, edge, centre, corner • Direction and Movement: compass point, north, south, east, west, (N, S, E, W), diagonal • Angles: acute, obtuse	**Consolidating Years 1, 2 and 3, plus** • Position: grid, row, column, origin, coordinates • Direction and Movement: • Angles:	**Consolidating Years 1, 2, 3 and 4, plus** • Position: x axis, y axis • Direction and Movement: • Angles:	**Consolidating Years 1, 2, 3, 4 and 5, plus** • Position: quadrant, first, second, third, fourth, negative, positive, axis, axes, brackets • Direction and Movement: Angles: reflex • Transformation: translation, rotation

Statistics

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Consolidating Year 1, plus • Data: data, diagram, count, tally, sort, vote, graph, tally chart, block graph, pictogram, represent, group, set, same, different, list, table, label, title • Analysis: compare, how many more, altogether, how many…?, most popular, most common, least popular, least common	**Consolidating Years 1 and 2, plus** • Data: bar chart, frequency table, axis, axes • Analysis:	**Consolidating Years 1, 2 and 3, plus** • Data: questionnaire • Analysis:	**Consolidating Years 1, 2, 3 and 4, plus** • Data: line graph, x axis, y axis, plot points, origin, scale • Analysis:	**Consolidating Years 1, 2, 3, 4 and 5, plus** • Data: database, pie chart, Carroll diagram, Venn diagram • Analysis: mean, average, mode, median, distribution, maximum/minimum value, classify, outcome