Lower Key Stage 2: Year 3 & Year 4
Number: Place Value, Addition, Subtraction, Multiplication, Division, Fractions
Measure: Length, Mass, Capacity, Perimeter, Time, Money
Geometry: Properties of shape, Angles, Co-ordinate, Position, Symmetry
Statistics: Graphs

Objectives for Number Lower KS2 : Y3 Autumn	
Number	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, ones)
	Compare and order numbers up to 1,000.
	Identify, represent and estimate numbers using different representations.
	Read and write numbers up to 1,000 in numerals and in words. Solve number problems and practical problems involving these ideas.
	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.
	Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.
	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.

	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.
	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.

Objectives for Number Lower KS2 : Y3 Spring	
Number	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
	Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit number 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 factions and non-unit fractions with small denominators
	Compare and order unit fractions, and fractions with the same denominator
	Solve problems that involve all of the above
Measure	Measure, compare, add and subtact: lengths (m,cm,mm); mass (kg/g); colume/capacity (l/ml)
	Measure the perimeter of simple 2-D shapes
	Add and subtract amounts of money to give change, using both £ and p in practical contexts
Geometry	Interpret and represent data using bar charts, pictograms and tables

	Solve one-step and two-step questions (for example, "How many more?" and "How many fewer?") using information presented in scald bar charts and pictograms and tables

Objectives for Number Lower KS2 : Y3 Summer	
Number	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 factions 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
	Compare and order unit fractions, and fractions with the same denominator
	Solve problems that involve all of the above
Measure	Measure, compare, add and subtact: lengths (m,cm,mm); mass (kg/g); colume/capacity (l/ml)
	Tell and write the time from an analogue clock, including using Roman numerals from l to Xll, and 12-hour and 24-hour clocks
	Estimate and read the time with icreasing 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, year and leap year
	Compare durations of events
Geometry	Draw 2-D shapes and make 3-D shape using modelling materials; recognise 3-Dshapes in different orientations and describe them
	Recognise angles as a property of shape or a description of a turn

	Identify right angles, recognise that weo right andles make a half-turn, three make a 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

Objectives for Number Lower KS2 : Y4 Autumn	
Number	Count in multiples of 6, 7, 9, 25 and 1,000.
	Find 1,000 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 (thousands, hundreds, tens, and ones).
	Order and compare numbers beyond 1,000.
	Identify, represent and estimate numbers using different representations.
	Round any number to the nearest 10, 100 or 1,000. Solve number and practical problems that involve all of the above and with increasingly 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
	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.
	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.
Measure	Convert between different units of measure (for example, kilometre to metre; hour to minute).
	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres
	Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.

Objectives for Number Lower KS2 : Y4 Spring	
Number	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
	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
	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 one 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

	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
Measure	Solve simple measure and money problems involving fractions and decimals to two decimal places
	Find the area of rectilinear shapes by counting squares
	Estimate, compare and calculate different measures, including money in pounds and pence

Objectives for Number Lower KS2 : Y4 Summer	
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 $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$
	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
Measure	Convert between different units of measure (for example, kilometre to metre; hour to minute)
	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
Geometry	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 lies of symmetry in 2-D shapes presented in different orientations
	Complete a simple symmetric figute with respect to a specific line of symmetry
	Describe positions of a 2-D grid as co-ordinates 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
Statistics	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 chaarts, pictograms, tables and other graphs.