Year One	
Number and Place Value	 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.
	 read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs
Addition and	 represent and use number bonds and related subtraction facts within 20
Subtraction	 add and subtract one-digit and two-digit numbers to 20, including zero
Subtraction	solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number
	problems such as $7 = \square - 9$.
Multiplication and	 solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations
Division	and arrays with the support of the teacher.
Fractions	 recognise, find and name a half as one of two equal parts of an object, shape or quantity
- Tabliono	recognise, find and name a quarter as one of four equal parts of an object, shape or quantity
	compare, describe and solve practical problems for:
	o lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
	o mass/weight [for example, heavy/light, heavier than, lighter than]
	o capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]
	 time [for example, quicker, slower, earlier, later]
	measure and begin to record the following:
	o lengths and heights
Measurement	o mass/weight
	o capacity and volume
	o time (hours, minutes, seconds)
	recognise and know the value of different denominations of coins and notes
	sequence events in chronological order using language [for example, 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.
Geometry: Properties of Shapes	recognise and name common 2-D and 3-D shapes, including: O D shapes (final and shapes) simples (in shading a great shape).
	 2-D shapes [for example, rectangles (including squares), circles and triangles]
	3-D shapes [for example, cuboids (including cubes), pyramids and spheres].
Geometry:	 describe position, direction and movement, including whole, half, quarter and three-quarter turns.
Position & Direction	

	Year Two	
	count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward	
Number and Place Value	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.	
	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 	
Addition and	 recall & use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 	
Subtraction	add and subtract numbers using concrete objects, pictorial representations, and mentally, including:	
Subtraction	 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 & use the inverse relationship between addition & subtraction; use this to check calculations and solve missing number problems.	
	 recall and use multiplication and division facts for the 2, 5 & 10 multiplication tables, including recognising odd or even numbers 	
Multiplication and	• calculate mathematical statements for multiplication and division and write them using the multiplication (x), division (÷) and equals (=) signs	
Division	show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	
	• solve problems using materials, arrays, repeated addition, mental methods, and multiplication & division facts, including problems in contexts.	
Fractions	• recognise, find, name & write fractions 1/3, 1/4, 1/4 and 3/4 of a length, shape, set of objects or quantity	
Tactions	 write simple fractions e.g. ½ of 6 = 3 and recognise the equivalence of two quarters and one half. 	
	• 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	
	 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 	
Measurement	find different combinations of coins that equal the same amounts of money	
	solve simple problems in a practical context involving addition & 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.	
Geometry: Properties of Shapes	identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line	
	 identify & 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]	
	compare and sort common 2-D and 3-D shapes and everyday objects.	
Geometry: 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 and distinguishing between	
	rotation as a turn and in terms of right angles for quarter, ½ and ¾ turns (clockwise and anti-clockwise).	
Statistics	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.	

	Year Three
Number and Place Value	• 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 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.
	add and subtract numbers mentally, including:
	 ○ a three-digit number and ones ○ a three-digit number and tens ○ a three-digit number and hundreds
Addition and Subtraction	 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 & subtraction
	 recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
Multiplication and	 write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-
Division	digit numbers times one-digit numbers, using mental and progressing to formal written methods
Dividion	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.
	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
Fractions	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 [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$]
	compare and order unit fractions with the same denominator
	solve problems that involve all of the above.
	measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/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
Measurement	tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks
IN CACATOMIC IN	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, year and leap year
Geometry: Properties of Shapes	compare durations of events [for example to calculate the time taken by particular events or tasks].
	draw 2-D shapes & make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations & describe them
	recognise angles as a property of shape or a description of a turn identify right angles, recognise that two right angles as left turn, there make there are a feet turn, and feet a complete turn, identify,
	• 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. interpret and present data using her shorts, pictograms and tables.
Statistics	• interpret and present data using bar charts, pictograms and tables
Statistics	solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar sharts and pictograms and tables.
	charts and pictograms and tables.

	Year Four	
	• 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 (thousands, hundreds, tens, and ones) 	
Number and Place Value	 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 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 0 and place value. 	
	add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	
Addition and Subtraction	 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 x 12 	
	• use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together	
Multiplication and	three numbers	
Multiplication and Division	recognise and use factor pairs and commutativity in mental calculations	
DIVISION	 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 hundredths arise when dividing an object by 100 and dividing tenths by 10) 	
	 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	
Fractions	 recognise and write decimal equivalents of any number of tenths or hundredths 	
	 recognise and write decimal equivalents to ¼, ½, ¾ 	
	• find the effect of dividing a 1- or 2-digit number by 10 and 100, identifying the value of the resulting digits 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. 	
Measurement	 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 	
	 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. 	
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 2-D shapes presented in different orientations 	
	 complete a simple symmetric figure with respect to a specific line of symmetry. 	

Geometry: Position and Direction	 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.
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 charts, pictograms, tables and other graphs.

Year Five	
Number 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 given number up to 1 000 000
	 interpret negative numbers in context, count forwards & backwards with positive & negative whole numbers, including through 0
	 round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000
	solve number problems and practical problems that involve all of the above
	 read Roman numerals to 1000 (M) and recognise years written in Roman numerals.
	 add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar + and –)
Addition and Subtraction	add and subtract numbers mentally with increasingly large numbers
Addition and Subtraction	 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.
	identify multiples and factors:
	 identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 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
	 multiply numbers up to 4 digits by 1- or 2-digit numbers using a formal written method, including long multiplication for 2-digit numbers
	multiply and divide numbers mentally, drawing upon known facts
Multiplication and Division	• 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 1,000
	 recognise and use square numbers & cube numbers, and the 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 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
	 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 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[for example, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$]
	 add & subtract fractions with the same denominator & denominators that are multiples of the same number
	 multiply proper fractions & mixed numbers by whole numbers, supported by materials and diagrams
	• read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$]
Fractions	 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
	solve problems involving number up to three 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, ½, ²/5 and those fractions with a denominator of a multiple
	of 10 or 25.
Measurement	 convert between different units of metric measure (for example, km and m; cm and m; cl and ml; g and kg; l and ml)

	 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 (cm²) and square metres (m²) and estimate the area of irregular shapes estimate volume [for example, using 1 cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water] solve problems involving converting between units of time
	• use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.
Geometry: Properties of Shapes	 identify 3-D shapes, including cubes and other cuboids, from 2-D representations know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles draw given angles, and measure them in degrees (°) identify: o angles at a point and one whole turn (total 360°) angles at a point on a straight line and ½ a turn (total 180°) o 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.
Geometry: 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.
Statistics	 solve comparison, sum and difference problems using information presented in a line graph complete, read and interpret information in tables, including timetables.

	Year Six
Number and Place Value	read, write, order and compare numbers up to 10 000 000 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 problems and practical problems that involve all of the above.
	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
Niconsis au	• divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting
Number – Addition and Subtraction,	remainders according to the context
Multiplication and	 perform mental calculations, including with mixed operations and large numbers
Division	identify common factors, common multiples and prime numbers
Division	 use their knowledge of the order of operations to carry out calculations involving the four operations
	 solve + & - 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, an appropriate degree of accuracy.
	 use common factors to simplify fractions; use common multiples to express fractions in the same denomination
	 compare and order fractions, 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 [eg, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$]
Number –	• divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$]
Fractions	• associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, \(^3\)\%
(including decimals &	• identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers
percentages)	up to three decimal places
	multiply one-digit numbers with up to two decimal places by whole numbers
	 use written division methods in cases where the answer has up to two decimal places.
	 solve problems which require answers to be rounded to specified degrees of accuracy
	 recall & use equivalences between simple fractions, decimals & percentages in different contexts.
	• solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication & division facts
Ratio and Proportion	• solve problems involving the calculation of percentages [eg, of measures, and such as 15% of 360] and use percentages for comparison
Italio and Proportion	 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
	• solve problems involving the calculation & conversion of units of measure, using decimal notation up to 3 decimal places where appropriate
Measurement	• 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 the 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 (cm³) and cubic metres (m³),
	and extending to other units [for example, mm ³ and km ³]

	 draw 2-D shapes using given dimensions and angles
	 recognise, describe and build simple 3-D shapes including making nets
Geometry: Properties of	 compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and
Shapes	regular polygons
	illustrate and name parts of circle, 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.
Geometry:	describe positions on the full coordinate grid (all four quadrants)
Position and Direction	 draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
Statistics	interpret and construct pie charts and line graphs and use these to solve problems
Statistics	calculate and interpret the mean as an average
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