

Working at the Expected Standard in Science

<u>YEAR 1</u>		
Place Value	Count to and across 100, forwards and backwards, beginning with 0 or one, or from any given number.	
	Counts, reads and writes numbers to 100 in numerals; counts in multiples of twos, fives and tens.	
	Given a number, identifies one more and one less.	
Addition and Subtraction	Represents and uses number bonds and related subtraction facts within 20.	
	Add and subtract one and two-digit numbers to twenty, including finding missing numbers.	
Multiplication and Division	Solving one-step problems involving multiplication and division using concrete objects, pictorial representations or arrays.	
Fractions	Recognises, finds and names a half as one of two equal parts of an object, shape or quantity.	
Measurement	Compares, describes and solves practical problems for lengths and heights e.g. long/short, longer/shorter, tall/short, double/half.	
	Compares, describes and solves practical problems for mass/weight e.g. heavy/light, heavier than, lighter than.	
	Compares, describes and solves practical problems for capacity and volume e/g/full/empty, more than, less than, half, half full, quarter.	
	Compares, describes and solves practical problems for time e.g. quicker, slower, earlier, later.	
	Tells the time to the hour and half past the hour and draws the hands on a clock face to show these times.	
Shape	Recognises and names common 2-D shapes e.g. rectangles (including squares), circles and triangles.	
	Recognises and names common 3-D shapes e.g. cuboids (including cubes), pyramids and spheres.	



	YEAR 2
Place Value	Read scales in divisions of ones, twos, fives and tens.
	Partition any two-digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus.
Addition and Subtraction	Add and subtract any 2 two-digit numbers using an efficient strategy, explaining their method verbally, in pictures or using apparatus (e.g. $48 + 35$; $72 - 17$)
	Recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships (e.g. If $7 + 3 = 10$ then $17 + 3 = 20$; if $7 - 3 = 4$ then $17 - 3 = 14$; leading to if $14 + 3 = 17$, then $3 + 14 = 17$, $17 - 14 = 3$ and $17 - 3 = 14$)
Multiplication and Division	Recall multiplication and division facts for 2, 5 and 10 and use them to solve simple problems, demonstrating an understanding of commutativity as necessary.
Fractions	Identify $1/4$, $1/3$, $1/2$, $2/4$ and $3/4$ of a number or shape, and know that all parts must be equal parts of the whole.
Measurement	Use different coins to make the same amount.
	Read the time on a clock to the nearest 15 minutes.
Shape	Name and describe properties of 2-D and 3-D shapes, including number of sides, vertices, edges, faces and lines of symmetry.



	YEAR 3
Place Value	Counts from 0 in multiples of four, eight, fifty and one hundred.
	Find out 10/100 more or less than a number.
	Recognises the place value of each digit in a three-digit number (hundreds, tens
	and ones).
	Solve number problems and practical problems involving these ideas.
Addition and	Adds and subtracts numbers mentally including a three-digit number and ones.
Subtraction	
	Adds and subtracts numbers mentally including a three-digit number and tens.
	Adds and subtracts numbers mentally including a three-digit number and
	hundreds.
	Add and subtract numbers up to three-digits using the written method.
Multiplication	Recalls and uses multiplication and division facts for the multiplication tables:
and Division	three, four and eight.
	Writes and calculates mathematical statements for multiplication and division
	using the multiplication tables that are known including for two-digit numbers
	times one-digit numbers, using mental and progressing to formal written
	methods.
Fractions	Counts up and down in tenths; recognises that tenths arise from dividing an
	object into 10 equal parts and in dividing one-digit numbers or quantities by 10.
	Recognises, find and writes fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.
	Recognises and shows, using diagrams equivalent fractions with small
	denominators.
Measurement	Measures, compares, adds and subtracts lengths (m/cm/mm); mass (kg/g);
	volume/capacity (I/ml).
	Adds ands subtracts amounts of money to give change, using both £ and p in
	practical contexts.
	Tells and writes the time from an analogue clock and 12-hour and 24-hour
	clocks.
	Identifies right angles, recognises that two right angles make a half-turn, three
	make three make three quarters of a turn and four make a complete turn;
	identifies whether angles are greater than or less than a right angle.
Statistics	Interpret and presents data using bar charts, pictograms and tables.



	YEAR 4
Place Value	Counts in multiples of 6,7,9,25 and 1000.
	Finds 1000 more or less.
	Counts backwards through zero to include negative numbers.
	Orders and compares numbers beyond 1000.
	Rounds any number to the nearest 10, 100 or 1000.
Addition and Subtraction	Add and subtract numbers up to 4 digits using the formal written method.
	Solves addition and subtraction two-step problems in context, deciding which operations and methods to use and why.
Multiplication and Division	Recalls multiplication and division facts for multiplication tables up to 12X12.
	Multiplies 2 or 3 digit numbers by a one-digit number using the formal method.
Fractions and Decimals	Recognises and shows, using diagrams families of common equivalent fractions.
	Counts up and down in hundredths; recognises that hundredths arise when
	dividing and object by 100 and dividing tenths by 10.
	Rounds decimals with one decimal place to the nearest whole number.
	Solves simple measure and money problems involving fractions and decimals to two decimal places.
Measurement	Converts between different units of measure e.g. kilometre to metre; hour to minute.
Shape	Compares and classifies geometric shapes including quadrilaterals and triangles, based on their properties and sizes.
	Identify lines of symmetry in two dimensional shapes presented in different orientations.
	Plots specified points and draws sides to complete a given polygon.
Statistics	Solves comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.