

Year Three

It is expected that all children will take part in a daily mathematics lesson and additionally take part in 'Quick Maths' activities each day. An extended problem solving lesson or investigation should be planned weekly. N.B. Problem solving and reasoning should continue to be evident in everyday lesson planning when applicable – see examples given below.

Year Three Autumn 1	Weeks	Learning Outcomes
Year 2 Key Concepts	2	Recognise the place value in a two-digit number; 2, 5 and 10 times tables;
		Compare and order numbers from 0 to 100; use <, > and = signs;
		Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts to 100, e.g. if $6 + 3 = 9$ knowing that $56 + 3 = 59$;
		Recall 2, 5 and 10 multiplication tables and calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs
		Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a set of objects or quantity
Number and Place Value	1	Recognise the place value of each digit in a 3-digit number (100s, 10s, 1s) Read and write numbers up to 1,000 in numerals and in words Compare and order numbers to 1000
	N/A	Find 10 or 100 more or less than a given number
Addition & Subtraction	2	Add and subtract numbers mentally, including: a three-digit number and 1s, 10 or 100s Add and subtract numbers with up to three digits using partitioning;
Number - multiplication and division	On-going	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
Number - fractions	2	Recognise and use fractions as numbers: unit fractions only (i.e. numerator = 1)
		Recognise, find and write fractions of a discrete set of objects: unit fractions only;
		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
Problem Solving (Weekly)		Use place value and number facts to solve problems;
		Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts
		Solve problems related to place value HTU
		Extended problem solving/investigations Pupils solve simple problems in contexts, deciding which of the 4 operations to use and why.

Autumn 2	Weeks	Learning Outcomes
Addition & Subtraction	On-going	Pupils continue to practise both mental methods and partitioned columnar addition and subtraction with increasingly large numbers to aid fluency
Multiplication & Division	On-going	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
	1	Represent multiplication graphically as an array
	1	Solve multiplication as repeated addition
	1	Solve division as repeated subtraction
Fractions	1	Recognise and show, using diagrams, equivalent fractions with small denominators
Measurement	1	Add and subtract amounts of money to give change, using both £ and p in practical contexts

Statistics	2	Interpret and present 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 scaled bar charts and pictograms and tables
Problem Solving (Weekly)		Solve scaling problems relating to measure.
		Extended problem solving activities to find patterns and rules.
		Regular opportunities to demonstrate independent use of previously taught concepts away from the point of teaching.

Spring 1	Weeks	Learning Outcomes
Addition & Subtraction	2	Add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction Estimate the answer to a calculation and use inverse operations to check answers
	On-going	Pupils continue to practise mental methods for addition and subtraction with increasingly large numbers to aid fluency
Multiplication and Division	On-going	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables
	2	To solve multiplication calculations involving three factors To derive related facts for multiplication and division
Fractions	2	Add and subtract fractions with the same denominator within one whole Recognise, find and write fractions of a discrete set of objects including non-unit fractions.
		Solve simple problems in contexts, deciding which of the 4 operations to use and why 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 positive integer scaling problems and correspondence problems in which n objects are connected to m objects Regular opportunities to demonstrate independent use of previously taught concepts away from the point of teaching.

Spring 2		Learning Outcomes
Number and Place Value	On-going	Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number (HTU)
	1	Solve number problems and practical problems involving all Year 3 Number and place value curriculum
Addition & Subtraction	On-going	Pupils continue to practise mental methods for addition and subtraction with increasingly large numbers to aid fluency
Multiplication and Division	On-going	Recall and use multiplication and division facts for the 2, 3, 4, 5, 8 and 10 multiplication tables
	1	Compare and order unit fractions, and fractions with the same denominators
Measurement	N/A Taught in conjunction with shape below.	Measure the perimeter of simple 2-D shapes

Geometry – Properties of shape	1	Draw 2-D shapes Make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them.
Problem Solving (Weekly)	1	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; right angles, recognise that 2 right angles make a half-turn, 3 make three-quarters of a turn and 4 a complete turn; identify whether angles are greater than, less than or equal to a right angle
		Regular opportunities to demonstrate independent use of previously taught concepts away from the point of teaching. Extended problem solving activities to find all possible solutions
		Identify horizontal and vertical lines and pairs of perpendicular and parallel lines
Statistics	1	Interpret and present 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 scaled bar charts and pictograms and tables
Problem Solving (Weekly)	1	Solve problems that relate to all concepts from the 'Number – Fractions' learning outcomes for Year Three
		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
		Extended problem solving activities to develop reasoning. Regular opportunities to demonstrate independent use of previously taught concepts away from the point of teaching.
Summer 1		Learning Outcomes
Addition & Subtraction	On-going	Pupils continue to practise mental methods for addition and subtraction with increasingly large numbers to aid fluency.
	1	Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction
Multiplication and Division	On-going	Recall and use multiplication and division facts for the 2, 3, 4, 5, 8 and 10 multiplication tables
	1	
Fractions	1	Add and subtract fractions with the same denominator within one whole
	1	Recognise, find and write fractions of a discrete set of objects including non-unit fractions. 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
Measurement	2	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)

Summer 2		Learning Outcomes
Number and Place Value	On-going	Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number (HTU)
Addition & Subtraction	1	Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction
	On-going	Pupils continue to practise mental methods for addition and subtraction with increasingly large numbers to aid fluency.
Multiplication and Division	1	To solve multiplication calculations involving three factors
		To derive related facts for multiplication and division
	On-going	Recall and use multiplication and division facts for the 2, 3, 4, 5, 8 and 10 multiplication tables
Fractions	1	Compare and order unit fractions, and fractions with the same denominators
Measurement	2	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, am/pm, 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 [for example, to calculate the time taken by particular events or tasks]
	2	

Problem Solving (Weekly)		To solve reasoning problems that relate to telling the time.
		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

	To solve multistep problems in the context of money
	Regular opportunities to demonstrate independent use of previously taught concepts away from the point of teaching.

