

YEAR 4

AUTUMN TERM- 27

Number and place value	Recognise the place value of each digit in a 4-digit number (1000s, 100s, 10s, and 1s); order and compare numbers with up to 4 digits.
	Begin to place 4-digit numbers on number lines and round these to the nearest 10, 100 or 1000.
Addition and Subtraction	Know bonds to the next 100.
	Use place value and number facts to add numbers with up to 4 digits, including fluency in adding any pair of 2-digit numbers.
	Use counting up to subtract numbers with up to 3 digits crossing one multiple of 100.
	Solve addition and subtraction problems for numbers with up to 3-digits, including in contexts of word problems, deciding which written or mental operations and methods to use and why.
	Use column addition to add 3-digit numbers; begin to add 4-digit numbers.
	Use expanded column subtraction to subtract 3-digit numbers.
	Use logical thinking to look for patterns in numbers.
Multiplication and Division	Choose a method to subtract that is appropriate to the numbers in the calculation.
	Use the distributive law to multiply 2-digit numbers by a 1-digit number using formal written layout or mental methods.
	Use table facts and commutativity to perform multiplications involving multiples of 10.
	Recall multiplication and division facts for multiplication tables, for 2, 5, 10, 3, 4, 8, 6 and 9 times tables.
	Use the distributive law to multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout (grid).
	Double and halve 3-digit numbers using partitioning and be able to describe, explain and predict patterns.
	Begin to use place value and known and derived facts to divide numbers above tables facts.
Fractions, Decimals, Ratios and Percentages	Work systematically and predict patterns.
	Find unit fractions of amounts.
	Begin to recognise and show families of common equivalent fractions.
	Count in fractions, expressing each fraction in its simplest form.
	Recognise and write decimal and fraction equivalents of tenths and a $\frac{1}{2}$.
Measures	Find the effect of dividing a 1-digit or 2-digit number by 10, and recognise that the first place after the decimal point is a tenth.
	Read, write and convert time between analogue and digital 12-hour clocks.
	Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.
	Read scales to the nearest 100 g and draw a bar chart where one step represents 100.
Geometry	Solve simple measures problems and convert between different units of measure – mm, cm, m; ml, l; g, kg.
Statistics	-Use mathematical reasoning to answer a question by collecting, displaying and interpreting data in a frequency table and bar chart, choosing an appropriate scale.

Year 4

SPRING TERM- 36

Number and place value	Count on and back in multiples of 6, 7, 9, 25 and 1000 and work systematically, predicting and explaining patterns.	
	Place 4-digit numbers on number lines, recognise the place value of each digit and round these to the nearest 10, 100 or 1000.	
	Explain and justify reasoning about what happens when numbers are multiplied and divided by 10.	
	Add amounts of money mentally using place value and number facts.	
Addition and Subtraction	Add and subtract 1s, 10s or 100s from numbers with up to 4 digits crossing multiples of 10, 100, or 1000.	
	Use counting up subtraction to subtract 3-digit numbers and 4-digit numbers from multiples of 1000 and describe and explain patterns in digit sums.	
	Use compact column subtraction to subtract 3-digit numbers.	
	Read and interpret addition word problems.	
	Add 2 numbers with up to 4 digits using the formal written method of columnar addition, including answers that are greater than 10 000.	
	Use column addition to add several 2-digit numbers.	
	Investigate and reason methodically and systematically.	
	Add and subtract numbers with up to 4 digits using formal columnar addition and subtraction methods.	
Multiplication and Division	Identify the calculation(s) needed to solve a word problem.	
	Solve addition and subtraction 2-step problems in context.	
	Recognise and use factor pairs and commutativity in mental calculations, to solve multiplications and divisions involving 2-digit and 3-digit multiples of 10.	
	Recall multiplication and division facts for multiplication tables, for 2, 3, 4, 5, 6, 7, 8, 9 and 10 times tables.	
	Use doubling and halving to multiply and divide by 4, and to multiply by 5 and 20	
	Multiply 2-digit and 3-digit numbers by a 1-digit number using a formal written layout (vertical algorithm – ladder).	
Fractions, Decimals, Ratios and Percentages	Notice patterns; make and test predictions.	
	Use place value and known and derived facts to divide numbers above table facts.	
	-Recognise and show families of common equivalent fractions and begin to compare fractions with non-like denominators	
	Begin to multiply and divide numbers by 10 and 100, understanding that this involves a shift of the digits on a place-value grid and identify the value of the digits in the answer as ones, tenths and hundredths.	
Measures	Solve simple problems involving fractions and find non-unit fractions of amounts where the answer is a whole number.	
	Compare two 1-place decimals, place on a line and round decimals with 1 decimal place to the nearest whole number.	
	-Begin to convert between metric units of length, e.g. kilometres to metres, and solve problems involving different measures.	
Measures	Estimate, compare and calculate different measures, including solving simple money problems involving decimals to 2 decimal places.	
	Solve simple problems involving finding the perimeter of rectilinear shapes.	

	Read, write and convert time between analogue and digital 12- and 24-hour clocks.	
Geometry	Identify acute and obtuse angles and compare and order angles up to 2 right angles by size.	
	Draw shapes with given properties and explain reasoning.	
	Identify lines of symmetry in 2D shapes presented in different orientations.	
	Complete a simple symmetric figure with respect to a specific line of symmetry.	
Statistics	-Count on and back in multiples of 6, 7, 9, 25 and 1000 and work systematically, predicting and explaining patterns.	
	Place 4-digit numbers on number lines, recognise the place value of each digit and round these to the nearest 10, 100 or 1000.	
	Explain and justify reasoning about what happens when numbers are multiplied and divided by 10.	
	Add amounts of money mentally using place value and number facts.	

Year 4

SUMMER TERM- 43

Number and place value	<p>Find 1, 10, 100 and 1000 more or less than a given number.</p> <p>Count backwards through zero to include negative numbers; use knowledge of factors and reasoning to solve problems.</p> <p>Order and compare numbers beyond 1000.</p> <p>Identify, represent and estimate numbers using different representations.</p> <p>Solve number and practical problems with increasingly large positive numbers.</p> <p>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.</p>
Addition and Subtraction	<p>Confidently add numbers with up to 4 digits using place value and number facts, including fluency in adding any pairs of 2-digit numbers.</p> <p>When appropriate, use counting up to subtract numbers with up to 4 digits.</p> <p>Use counting up and subtraction to find change or solve money problems.</p> <p>Add numbers with up to 4 digits using the formal written method of columnar addition.</p> <p>Subtract numbers with up to 4 digits using the formal written method of expanded or compact columnar subtraction.</p> <p>Use inverse operations to check answers to a calculation.</p> <p>Use logical reasoning to create additions of 4-digit numbers to a given total.</p>
Multiplication and Division	<p>Use place value and known and derived facts to multiply 2-digit and 3-digit numbers by a 1-digit number (including multiplying by 0 and 1) and to multiply three 1-digit numbers.</p> <p>Use a written method to multiply amounts of money by 1-digit numbers</p> <p>Estimate and use inverse operations to check answer to a multiplication or division calculation.</p> <p>Multiply 2- and 3-digit numbers by a 1-digit number using formal written layout where appropriate.</p> <p>Multiply 2-digit numbers by 2-digit numbers using the distributive law (grid method).</p> <p>Use place value and known and derived facts to divide larger numbers (answers up to 50) including dividing by 1.</p> <p>Use doubling and halving to multiply and divide mentally.</p> <p>Recall multiplication and division facts for multiplication tables up to 12×12 and describe patterns in the tables.</p> <p>Solve problems involving multiplying and adding, including integer scaling and correspondence.</p> <p>Sustain a line of enquiry; make and test a hypothesis.</p> <p>Look for patterns and write rules.</p>
Fractions, Decimals, Ratios and Percentages	<p>Use equivalent fractions to simplify and compare fractions with non-like denominators.</p> <p>Find non-unit fractions of amounts and solve problems involving harder fractions to calculate quantities.</p> <p>Recognise that tenths and hundredths arise when dividing by 10 and 100; multiply decimal numbers by 10 and 100, understanding that this involves a shift of the digits on a place-value grid.</p> <p>Count up and down in tenths and hundredths.</p> <p>Compare numbers with up to 2 decimal places, identify the value of the digits as ones, tenths and hundredths, and round decimal numbers to the nearest whole.</p> <p>Solve simple measure and money problems using fractions and decimals to 2 decimal places.</p> <p>Add and subtract 0.1 and 0.01.</p> <p>Recognise and write decimal and fraction equivalents of tenths, hundredths, $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$.</p> <p>Write additions of fractions with different denominators with a total of 1.</p> <p>Add and subtract fractions with the same denominator, including totals greater than 1.</p>
Measures	<p>Convert between different metric units of measure, e.g. km to m; solve problems involving different measures.</p>

	<p>Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.</p> <p>Solve problems involving money.</p> <p>Find the area of rectilinear shapes.</p>
Geometry	<p>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</p> <p>Describe positions on a 2D grid as coordinates in the first quadrant.</p> <p>Describe movements between positions as translations of a unit left/right and up/down.</p> <p>Plot specified points and draw sides to complete a given polygon.</p>
Statistics	<p>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</p> <p>Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</p>