Strand	Year 4 Objectives	Covered	Year 4 Objectives	Covered
Number – number and place value	Count in multiples of 6, 7, 9, 25 and 1000		Using a variety of representations, including measures, pupils become fluent in the order and place value of numbers beyond 1000, including counting in tens and hundreds, and maintaining fluency in other multiples through varied and frequent practice.	
	Find 1000 more or less than a given number		Extend knowledge of the number system to include the decimal numbers and fractions that they have met so far.	
	Count backwards through zero to include negative numbers		Connect estimation and rounding numbers to the use of measuring instruments.	
	Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)			
	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 zero and place value		
Number – addition and subtraction	add and subtract numbers with up to 4 digits using the formal written methods of :- • columnar addition • 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			
Number – multiplications and division	Recall multiplication and division facts for multiplication tables up to 12 × 12		Continue to practise recalling and using multiplication tables and related division facts to aid fluency.	
	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		Pupils practise mental methods and extend this to three-digit numbers to derive facts, (for example 600 ÷ 3 = 200 can be derived from 2 x 3 = 6)	
	Recognise and use factor pairs and commutativity in mental calculations		Become fluent in the formal written method of short multiplication and short division with exact answers	
			Write statements about the equality of expressions (for example, use the distributive law 39 × 7 = 30 × 7 + 9 × 7 and associative law (2 × 3) × 4 = 2 × (3 × 4)).	

			Combine knowledge of number facts and rules of arithmetic to solve mental and written calculations for example, 2 x 6 x 5 = 10 x 6 = 60.	
			Solve two-step problems in contexts, choosing the appropriate operation, working with increasingly harder numbers. (This should include correspondence questions such as the numbers of choices of a meal on a menu, or three cakes shared equally between 10 children.)	
	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			
Number – fractions	Recognise and show, using diagrams, families of common equivalent fractions		Connect hundredths to tenths and place value and decimal measure.	
	Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.		Extend the use of the number line to connect fractions, numbers and measures beyond the [0, 1] interval, including relating this to measure.	
	Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities,		Understand the relation between non-unit fractions and multiplication and	

	including non-unit fractions where the answer is a whole number		division of quantities, with particular emphasis on tenths and hundredths.	
	Add and subtract fractions with the same denominator			
	Recognise and write decimal equivalents of any number of tenths or hundredths		Continue to recognise fractions in the context of parts of a whole, numbers, measurements, a shape, and unit fractions as a division of a quantity.	
	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		Practise adding and subtracting fractions with the same denominator through a variety of increasingly complex problems to improve fluency.	
	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		Make connections between fractions of a length, of a shape and as a representation of one whole or set of quantities.	
			Use factors and multiples to recognise equivalent fractions and simplify where appropriate (for example, 6/9 = 2/3 or $\frac{1}{4}$ = 2/8	
	Solve simple measure and money problems involving fractions and decimals to two decimal places		Continue to practise adding and subtracting fractions with the same denominator, to become fluent through a variety of increasingly complex problems beyond one whole	
			Pupils' understanding of the number system and decimal place value is extended at this stage to tenths and then hundredths. This includes relating the decimal notation to division of whole number by 10 and later 100.	

			They practise counting using simple fractions and decimals, both forwards and backwards.	
			Pupils learn decimal notation and the language associated with it, including in the context of measurements.	
			They make comparisons and order decimal amounts and quantities that are expressed to the same number of decimal places.	
			They should be able to represent numbers with one or two decimal places in several ways, such as on number lines.	
Measurement	Convert between different units of measure [for example, kilometre to metre; hour to minute]		Pupils build on their understanding of place value and decimal notation to record metric measures, including money.	
			They use multiplication to convert from larger to smaller units.	
	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres		Perimeter can be expressed algebraically as 2(a + b) where a and b are the dimensions in the same unit.	

	Find the area of rectilinear shapes by counting squares			
	Estimate, compare and calculate different measures, including money in pounds and pence		They relate area to arrays and multiplication amounts.	
	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			
	Know the number of minutes in an hour and the number of hours in a day.			
Geometry – properties of shape	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes		Pupils continue to classify shapes using geometrical properties, extending to classifying different triangles (for example, isosceles, equilateral, scalene) and quadrilaterals (for example, parallelogram, rhombus, and trapezium).	
	Identify acute and obtuse angles and compare and order angles up to two right angles by size		Pupils compare and order angles in preparation for using a protractor and compare lengths and angles to decide if a polygon is regular or irregular.	
	Identify lines of symmetry in 2-D shapes presented in different orientations		Pupils connect decimals and rounding to drawing and measuring straight lines in centimetres, in a variety of contexts.	
	Complete a simple symmetric figure with respect to a specific line of symmetry		Pupils draw symmetric patterns using a variety of media to become familiar with different orientations of lines of symmetry	

			Recognise line symmetry in a variety of diagrams, including where the line of symmetry does not dissect the original shape.	
Geometry – position and direction	Describe positions on a 2-D grid as coordinates in the first quadrant		Draw a pair of axes in one quadrant, with equal scales and integer labels.	
	Describe movements between positions as translations of a given unit to the left/right and up/down		Read, write and use pairs of coordinates, for example (2,5) including using co-ordinate plotting ICT tools	
	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.		Understand and use a greater range of scales in their representations.	
	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.		Pupils begin to relate the graphical representation of data to recording change over time	