Year 4 Maths Planning

Area of Maths	Knowledge/Learning Content	
Number and Place Value	- Represent and partition numbers to 1000 and to 10,000. - Count in multiples of 6, 7, 9, 25 and 1000. - Find 1, 10, 100 and 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. - Order and compare numbers to 10,000. - 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.	Use and apply place value knowledge across a variety of contexts through: - Word problems - Investigations - Games - Verbal and written reasoning Use correct mathematical language.
Addition and Subtraction	- Add and subtract 1s, 10s, 100s and 1000s. - Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and 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.	Reason and solve problems including: - Missing numbers - Using number facts - One and two-step word problems - Bar method Use correct mathematical language.
Multiplication and Division	- Recall multiplication and division facts for multiplication tables up to 12 × 12. - 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. - Recognise and use factor pairs and commutativity in mental calculations. - Multiply and divide by 10 and 100. - Use informal written methods for multiplication.	Reason and solve problems including: - Efficient multiplication and division - Multiplication and division word problems - Number families/missing numbers/related facts

	• 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.	• Scaling Use correct mathematical language.
Fractions/Decimals	• Understand the whole. • Partition a mixed number. • Compare and order mixed numbers. • Understand improper fractions. • Convert mixed numbers to improper fractions and convert improper fractions to mixed numbers. • Recognise and show, using diagrams, families of common equivalent fractions. • Add two or more fractions. • Add fractions and mixed numbers. • Subtract two fractions. • Subtract fractions from whole amounts. • Subtract fractions from mixed numbers. • Understand tenths as fractions and decimals. • Understand hundredths as fractions and decimals. • Count up and down in tenths and hundredths. • Add and subtract fractions with the same denominator. • 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. • Recognise and write decimal equivalents of any number of tenths or hundredths. • Recognise and write decimal equivalents to ¼, ½, ¾. • Divide a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths, and hundredths. • Round decimals with one decimal place to the nearest whole number.	Reason and solve problems involving the application and knowledge of fractions, equivalent fractions, mixed numbers and decimals. Use correct mathematical language.

	• Compare and order decimals and round to the nearest whole number. • Compare numbers with the same number of decimal places up to two decimal places. • Convert between pounds and pence. • Solve simple measure and money problems involving fractions and decimals to two decimal places.	
Measurement	• Measure in kilometres and metres. • 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 and compare the area of rectilinear shapes by counting squares. • Find the perimeter of polygons. • 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.	Reason and solve problems, including word problems which include: • Adding and subtracting length, mass and volume • Using £ and p in practical contexts • Calculate and compare the time taken by particular events • Tell the time accurately Use correct mathematical language.
Geometry: properties of shape	• Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. • Understand angles as turns. • 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.	Reason and solve problems, including word problems involving: • Knowing properties of 2 and 3-D shapes. • Recognising angle and lines and reasoning about them. Use correct mathematical language.
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.	Reason and solve problems which involve reading, plotting and drawing coordinates and shapes on a grid. Use correct mathematical language.

Statistics	• Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and line graphs. • Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	Reason and solve a variety of multi-step questions using the information presented in scaled bar charts, pictograms, tables and other graphs. Use correct mathematical language.