



Mathematics – Year Four

Strand	Unit	Lessons	NC Objectives
Number - number and place value	1 Place value – 4-digit numbers (1)	Numbers to 1,000 Rounding to the nearest 10 Rounding to the nearest 100 Counting in 1,000s Representing 4-digit numbers 1,000s, 100s, 10s and 1s The number line to 10,000 (1) The number line to 10,000 (2) Roman numerals to 100	Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) Round any number to the nearest 10, 100 or 1,000 Count in multiples of 6, 7, 9, 25 and 1,000 Identify, represent and estimate numbers using different representations Identify, represent and estimate numbers using different representations 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 - number and place value	2 Place value – 4-digit numbers (2)	Finding 1,000 more or less Comparing 4-digit numbers (1) Comparing 4-digit numbers (1) Ordering numbers to 10,000 Rounding to the nearest 1,000 Solving problems using rounding Counting in 25s Negative numbers (1) Negative numbers (2)	Finding 1,000 more or less Find 1,000 more or less than a given number Order and compare numbers beyond 1,000 Identify, represent and estimate numbers using different representations Round any number to the nearest 10, 100 or 1,000 Solve number and practical problems that involve all of the above and with increasingly large positive numbers Count in multiples of 6, 7, 9, 25 and 1,000 Count backwards through zero to include negative numbers Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
Number - number and place value	3 Place value – 4-digit numbers (2)	Adding two 4-digit numbers (1) Adding two 4-digit numbers (2) Adding two 4-digit numbers (3) Subtracting two 4-digit numbers (1) Subtracting two 4-digit numbers (2) Subtracting two 4-digit numbers (3) Subtracting two 4-digit numbers (4) Equivalent difference Estimating answers to additions and subtractions Checking strategies Problem solving – addition and subtraction (1) Problem solving – addition and subtraction (2)	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate Solve number and practical problems that involve all of the above and with increasingly large positive numbers Estimate and use inverse operations to check answers to a calculation Round any number to the nearest 10, 100 or 1,000



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		Problem solving – addition and subtraction (3) Problem solving – addition and subtraction (4)	
Measurement	4 Measure – perimeter	Kilometres Perimeter of a rectangle (1) Perimeter of a rectangle (2) Perimeter of rectilinear shapes (1) Perimeter of rectilinear shapes (2)	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 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
Number – multiplication and division Measurement	5 Multiplication and division (1)	Multiplying by multiples of 10 and 100 Multiplying by 0 and 1 Multiplying by 0 and 1 Dividing by 1 Multiplying and dividing by 6 6 times-table Multiplying and dividing by 9 9 times-table Multiplying and dividing by 7 7 times-table 11 and 12 times-tables	Multiplying by multiples of 10 and 100 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 Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days
Number – multiplication and division Year 5 – number – multiplication and division	6 Multiplication and division (2)	Problem solving – addition and multiplication Problem solving – mixed problems Using written methods to multiply Multiplying a 2-digit number by a 1-digit number Multiplying a 3-digit number by a 1-digit number Problem solving – multiplication Multiplying more than two numbers (1) Multiplying more than two numbers (2) Problem solving – mixed correspondence problems Dividing a 2-digit number by a 1-digit number (1) Division with remainders Dividing a 2-digit number by a 1-digit number (2) Dividing a 2-digit number by a 1-digit number (3) Dividing a 3-digit number by a 1-digit number	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 Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign Multiply two-digit and three-digit numbers by a one-digit number using formal written layout Recognise and use factor pairs and commutativity in mental calculations 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



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Strand	Unit	Lessons	NC Objectives
		Problem solving – division	
Measurement	7 Measurement	What is area? Counting squares (1) Counting squares (2) Making shapes Comparing area	Find the area of rectilinear shapes by counting squares Estimate, compare and calculate different measures, including money in pounds and pence
Number – fractions (including decimals)	8 Fractions (1)	Tenths and hundredths (1) Tenths and hundredths (2) Equivalent fractions (1) Equivalent fractions (2) Simplifying fractions Fractions greater than 1 (1) Fractions greater than 1 (2)	Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten Recognise and show, using diagrams, families of common equivalent fractions 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
Number – fractions (including decimals)	9 Fractions (2)	Adding fractions Subtracting fractions (1) Subtracting fractions (2) Problem solving – adding and subtracting fractions (1) Problem solving – adding and subtracting fractions (2) Calculating fractions of a quantity Problem solving – fraction of a quantity (1) Problem solving – fraction of a quantity (2)	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
Number – fractions (including decimals)	10 Decimals (1)	Tenths (1) Tenths (2) Tenths (3) Dividing by 10 (1) Dividing by 10 (2) Hundredths (1) Hundredths (2) Hundredths (3) Dividing by 100 Dividing by 10 and 100	Recognise and write decimal equivalents of any number of tenths or hundredths Solve simple measure and money problems involving fractions and decimals to two decimal places 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 Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten
Number – fractions (including decimals)	11 Decimals (2)	Making a whole Writing decimals Comparing decimals Ordering decimals Rounding decimals	Recognise and write decimal equivalents of any number of tenths or hundredths Add and subtract fractions with the same denominator



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		Halves and quarters Problem solving – decimals	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 Compare numbers with the same number of decimal places up to two decimal places Round decimals with one decimal place to the nearest whole number Recognise and write decimal equivalents to $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$ Solve simple measure and money problems involving fractions and decimals to two decimal places
Measurement	12 Money	Pounds and pence Pounds, tenths and hundredths Ordering amounts of money Rounding money Using rounding to estimate money Problem solving – pounds and pence Problem solving – multiplication and division Solving two-step problems Problem solving – money	Estimate, compare and calculate different measures, including money in pounds and pence Solve simple measure and money problems involving fractions and decimals to two decimal places
Measurement	13 Time	Units of time (1) Units of time (2) Converting times (1) Converting times (2) Problem solving – units of time	Convert between different units of measure [for example, kilometre to metre; hour to minute]
Statistics	14 Statistics	Line graphs (1) Line graphs (2) Problem solving – graphs	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs
Geometry – properties of shapes	15 Geometry – angles and 2D shapes	Identifying angles Comparing and ordering angles Identifying regular and irregular shapes Classifying triangles Classifying and comparing quadrilaterals Deducing facts about shapes Lines of symmetry inside a shape Lines of symmetry outside a shape Completing a symmetric figure	Identify acute and obtuse angles and compare and order angles up to two right angles by size Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes Identify lines of symmetry in 2D shapes presented in different orientations Complete a simple symmetric figure with respect to a specific line of symmetry



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		Completing a symmetric shape	
Geometry – position and direction	16 Geometry – position and direction	Describing position (1) Describing position (2) Drawing on a grid Reasoning on a grid D Moving on a grid Describing a movement on a grid	Describe positions on a 2D grid as coordinates in the first quadrant Plot specified points and draw sides to complete a given polygon Describe movements between positions as translations of a given unit to the left/right and up/down