



Year 5 Curriculum Map – Maths

Number and Calculation

Ready to
Progress
Criteria



The teaching of mathematics in **Key Stage 2** should ensure pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources (concrete objects, measuring tools, etc.). At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money.

Half Term 1 Numbers to 10,000 (including decimals) Calculation – Addition and Subtraction Multiplication and Division	Half Term 2 Number beyond 10,000 Calculation – Addition and Subtraction Multiplication and Division	Half Term 3 Number to 100,000 Multiplication and Division	Half Term 4 Numbers beyond 100,000 Fractions Decimals and Percentages Multiplication and Division	Half Term 5 Numbers to 1,000,000 Fractions Decimals and Percentages	Half Term 6 Numbers beyond 1,000,000 Fractions Decimals and Percentages
Concrete and Pictorial					
Identify and represent numbers to 10,000 using concrete objects and pictorial representation.	Identify and represent numbers to 10,000 using concrete objects and pictorial representation.	Identify and represent numbers 10, 000 Ousing concrete objects and pictorial representation.	Identify and represent numbers 100,000 using concrete objects and pictorial representation.	Identify and represent numbers to 1000,000 using concrete objects and pictorial representation.	Identify and represent numbers to 1000,000 using concrete objects and pictorial representation.
				Interpret negative numbers in context. Count forward and backwards through 0.	Interpret negative numbers in context.
Number and place value – Solve number problems, and practical problems.					
Order and compare numbers to 10,000.	Order and compare numbers to 10,000.	Order and compare numbers to 100,000.	Order and compare numbers to 100,000.	Order and compare numbers to 1,000,000.	Order and compare numbers to 1,000,000.
Given a number, identify 1, 10, 100, and 1000 more or less.	Given a number, identify 1, 10, 100, and 1000 more or less.	Given a number, identify 1, 10, 100, 1000, 10,000 more or less.	Given a number, identify 1, 10, 100, 1000, 10,000 more or less.	Given a number, identify 1, 10, 100, 1000, 10,000, 100,000 more or less.	Given a number, identify 1, 10, 100, 1000, 10,000, 100,000 more or less.
SNPV–1 Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01	SNPV–3 Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.				
SNPV–2 Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and nonstandard partitioning					
Count, read and write numbers - Solve number problems and practical problems.					
Read, write and order numbers to 10,000 in digits and words.	Read, write and order numbers to 10,000 in digits and words. Count in powers of ten from any given number up to 10,000.	Read, write and order numbers to 100,000 in digits and words.	Read, write and order numbers to 100,000 in digits and words.	Read, write and order numbers to 1, 000,000 in digits and words. Count coins (1p, 2p, 5p, 10p, 20p and 50p) and solve problems converting between pounds and pence.	Read, write and order numbers to 1, 000,000 in digits and words and determine the value of each digit.
	Round to the nearest 10, 100, 1000.				
	Count to and across 10,000 forwards and backwards from a given number.	Count in powers of ten from any given number up to 100, 000.	Count in powers of ten from any given number up to 100,000.	Count in powers of ten from any given number up to 1,000,000.	Read Roman numerals to 1000 (M). Count in powers of ten from any given number up beyond 1,000,000.
Addition and Subtraction - Estimating and using inverse operations to check answers to a calculation. Solving addition and subtraction multi-step problems in context, deciding which operations and methods to use and why. Estimate to check answers.					
Add and subtract numbers mentally (.e.g. HTU + TU, HTU – TU).	Add and subtract numbers mentally (.e.g. HTU + TU, HTU – TU).	Add and subtract numbers mentally (.e.g. HTU + TU, HTU – TU).	Add and subtract numbers mentally (.e.g. HTU + TU, HTU – TU).	Add and subtract numbers mentally (.e.g. HTU + TU, HTU – TU).	Add and subtract numbers mentally (.e.g. HTU + TU, HTU – TU).
Add and Subtract whole numbers with more than 4 digits using columns.	Add and Subtract whole numbers with more than 4 digits using columns.				Add and Subtract whole numbers with more than 4 digits using columns.
Multiplication and Division - Solving problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. Estimate to check answers.					
SNF–1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.	SNF–1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.	SNF–1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.	SNF–1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.	SNF–1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.	SNF–1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.
Multiply and divide numbers mentally drawing upon known facts.	SMD-3 Multiply numbers up to 4 digits by a one- or two-digit number using an formal written method, including long multiplication for two-digit numbers.	Multiply numbers up to 4 digits by a one- or two-digit number using an formal written method, including long multiplication for two-digit numbers.	Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.	Solve problems involving multiplication and division where larger numbers are used by decomposing them into their factors.	Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates
SMD-2 Identify multiples and factors, including finding all factor pairs of a number and common factors of 2 numbers and express a given number as a product of 2 or 3 factors..	SMD-4Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.				
Establish whether a number up to 100 is prime and recall prime numbers up to 19. Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.					
SMD-1 Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size.					
Recognise and use square numbers and cube numbers, and the notation for squared and cubed.					
Fractions – Solve problems involving any of the below.					
Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.	Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number.	5F-1 recognise, find and write fractions of a discrete set of objects; unit and non-unit fractions of larger denominators.	Recognise, find and write fractions of a discrete set of objects; unit and non-unit fractions of larger denominators.	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.	Add and subtract fractions with the same denominator and denominators that are multiples of the same number

Count up and down in tenths and hundredths and understand the effects of dividing by 10 and 100.	5F–2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system.	Compare and order fractions whose denominators are all multiples of the same number.		Compare and order fractions whose denominators are all multiples of the same number.	Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.
Decimals and Percentages - Solving problems involving numbers up to three decimal places.					
5F–3 Recall decimal fraction equivalents for 1/2 ,1/4 , 1/5 and 1/10, and for multiples of these proper fractions.	5NF–2 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth).		Recognise the per cent symbol (%) and understand that per cent relates to “number of parts per hundred”, and write percentages as a fraction with denominator hundred, and as a decimal fraction.	Solve problems which require knowing percentage and decimal equivalents of ½, ¼, ⅓, fifths and those with a denominator of a multiple of 10 or 25.	
Read and write decimal numbers as fractions [for example, 0.71 = 71/100].					
Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.					
Round decimals with two decimal places to the nearest whole number and to one decimal place.					
Read, write, order and compare numbers with up to three decimal places.					



Year 5 Curriculum Map – Maths

Geometry, Measurement and Statistics



Half Term 1 Numbers to 10,000	Half Term 2 Number beyond 10,000	Half Term 3 Number to 100, 000 2D and 3D shape Measurement – Area and Perimeter Length	Half Term 4 Numbers beyond 100,000 Measurement – Mass	Half Term 5 Numbers to 1 000,000 Angles Volume	Half Term 6 Numbers beyond 1,000,000 Position and Direction Time Statistics
	Geometry – Properties of Shape				Geometry – Position and Direction
	Identify 3D shapes, including cubes and other cuboids from 2D representations.	Use the properties of rectangles to deduce related facts and find missing lengths and angles.		5G-1 Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.	Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.
		Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.		5G-1Draw given angles and measure them in degrees.	Complete a simple symmetric figure with respect to a specific line of symmetry, including diagonal mirror lines.
		Draw quadrilaterals and triangles using given dimensions and angles.		Identify: - angles at a point and one whole turn (total 360o) - angles at a point on a straight line and ½ a turn (total 180o) - other multiples of 90o	
		Measurement - Using all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.			
		Convert between different units of metric measure (kilometre and metre; centimetre and metre; centimetre and millimetre).	Convert between different units of metric measure (Grams, Kilograms, Tonnes).	Estimate volume [for example, using 1 cm ³ blocks to build cuboids (including cubes)] and capacity [for example, using water].	Solve problems involving converting between units of time.
		Understand and use approximate equivalences between metric units and common imperial units such as inches, feet and miles.		Understand and use approximate equivalences between metric units and common imperial units such as fluid ounces, pints and gallons.	
		5G-2Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.	Understand and use approximate equivalences between metric units and common imperial units such as stones, pounds and ounces.	5NPV–4 Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts	
		5G-2Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm ²) and square metres (m ²) and estimate the area of irregular shapes.		5NPV–5 Convert between units of measure, including using common decimals and fractions.	
Complete, read and interpret information in tables, including timetables.					
Solve comparison, sum and difference problems using information presented in line graphs.					