

NCETM Maths Progression Document (Primary: Years 1–6)

Updated: 07 February 2026

Aligned with NCETM Mastery principles and DfE Ready-to-Progress criteria

1. Purpose & How to Use This Document

This progression provides a coherent, year-by-year sequence for key domains in primary mathematics. It is aligned with the NCETM Mastery approach and the DfE Ready-to-Progress (RtP) criteria. Use it to inform long-term, medium-term and lesson planning, ensuring small steps and secure understanding before moving on.

2. NCETM Mastery Principles

Coherence – concepts are broken into small, connected steps and revisited in varied contexts.

Representation & Structure – consistent use of representations (e.g., tens/ones, arrays, number lines) to expose the underlying structure.

Mathematical Thinking – reasoning, generalising and making connections are integral to daily lessons.

Fluency – efficient, accurate and flexible recall and calculation, including number facts and methods.

Variation – conceptual and procedural variation to deepen understanding and flexibility.

3. Organisation of the Progression

Each domain below sets out the key knowledge, skills and reasoning to *secure in each year group (Y1–Y6)*. Where appropriate, cross-domain links (e.g., *fractions ↔ decimals/percentages; geometry ↔ measures*) are noted.

Domain	Year 1 Expectations	Year 2 Expectations	Year 3/4 Expectations	Year 5/6 Expectations
A: Number & Place Value	<ul style="list-style-type: none">Count forwards and backwards to 100 from any number; read/write numbers to 100.Understand 10 as a unit; compose/decompose 2-digit numbers using tens/ones.Compare/order numbers to 100; use number lines and $<$, $>$, $=$.Recognise patterns in the count (2s, 5s, 10s).	<ul style="list-style-type: none">Secure tens/ones and flexible partitioning (e.g., $47 = 40+7$ or $30+17$).Count in 2s, 3s, 5s, 10s; odd/even.Compare/order numbers to 100; locate on number lines; round to nearest 10.Use place value and related facts to solve problems.	<ul style="list-style-type: none">Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).Count in multiples of 6, 7, 9, 25, and 1000.Find 1000 more or less than a given number.	<ul style="list-style-type: none">Read, write, order and compare numbers up to 10,000,000.Round any whole number to a required degree of accuracy.
B: Addition & Subtraction	<ul style="list-style-type: none">Secure number bonds within 10; bridge through 10 using concrete/visual methods.Add/subtract 1-digit numbers and 2-digit + 1-digit (no crossing tens, then supported	<ul style="list-style-type: none">Automate bonds within 20; apply “think 10” and bridging 10.Add/subtract 2-digit numbers (regrouping tens/ones) using mental and written strategies.	<ul style="list-style-type: none">Add and subtract numbers with up to 4 digits using formal written methods.Estimate and use inverse operations to check answers.	<ul style="list-style-type: none">Perform mental calculations, including with mixed operations and large numbers.Use formal written methods for addition, subtraction, multiplication, and division.

	<ul style="list-style-type: none"> crossing). Understand inverse relationships; use fact families. 	<ul style="list-style-type: none"> Use bar models and equations to represent and solve problems. 		
C: Multiplication & Division	<ul style="list-style-type: none"> Count in 2s, 5s, 10s; begin equal groups and sharing using concrete objects. Double/halve small quantities; link arrays to repeated addition. 	<ul style="list-style-type: none"> Recall/derive facts for 2, 5, 10 times tables; relate multiplication and division. Use arrays, number lines and bar models; odd/even reasoning; simple scaling. 	<ul style="list-style-type: none"> Recall multiplication and division facts for multiplication tables up to 12×2. Use formal written methods for multiplication and division where appropriate. 	<ul style="list-style-type: none"> Multiply and divide numbers mentally using known facts. Multiply multi-digit numbers up to 4 digits by a two-digit whole number using formal written methods.
D: Fractions	<ul style="list-style-type: none"> Recognise, find and name halves and quarters of shapes and small quantities. Share small sets into equal parts; link to division and measures. 	<ul style="list-style-type: none"> Recognise, find, name and write $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$; fractions on a number line. Equivalence of $\frac{2}{4}$ and $\frac{1}{2}$; simple fractions of quantities. 	<ul style="list-style-type: none"> Recognise and show equivalent fractions. Add and subtract fractions with the same denominator. Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100. 	<ul style="list-style-type: none"> Use common factors to simplify fractions. Compare and order fractions, including fractions > 1. Add and subtract fractions with different denominators and mixed numbers. Solve problems involving percentages.
E: Measurement	<ul style="list-style-type: none"> Compare/describe/solve problems for length/height, mass/weight, capacity/volume, time. Measure/record using standard units; recognise coins/notes; sequence events; tell time to hour/half hour. 	<ul style="list-style-type: none"> Choose/use appropriate units (m/cm; kg/g; l/ml); read scales in 1s, 2s, 5s, 10s. Money: combine amounts; find change. Time: quarter to/past; minutes in an hour; hours in a day. 	<ul style="list-style-type: none"> Measure and calculate the perimeter of simple 2D shapes. Convert between different units of measure (e.g., km to m). 	<ul style="list-style-type: none"> Convert between metric units and imperial units. Calculate the area of parallelograms and triangles.
F: Geometry – Properties of Shapes	<ul style="list-style-type: none"> Recognise/name common 2D and 3D shapes; describe simple properties. 	<ul style="list-style-type: none"> Identify/describe properties of 2D and 3D shapes; sides, edges, vertices; symmetry in a vertical line. 	<ul style="list-style-type: none"> Identify acute and obtuse angles. Compare and classify geometric shapes based on their properties. 	<ul style="list-style-type: none"> Draw and measure angles accurately. Recognise, describe and build 3D shapes.
G: Geometry – Position & Direction	<ul style="list-style-type: none"> Use language of position, direction and movement (whole, half, quarter turns). 	<ul style="list-style-type: none"> Describe position on a grid (informal); order/patterns; rotations and reflections. 		
H: Statistics	(Not taught in Y1)	<ul style="list-style-type: none"> Interpret/construct simple pictograms, tally charts, block diagrams and tables; ask/answer questions; systematic listing. 	Interpret and present data using bar charts and time graphs. <ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Calculate and interpret the mean as an average. Solve comparison, sum and difference problems using information presented in a line graph.
I: Ratio and Proportion	Earlier years build preparatory multiplicative understanding through scaling in measures and comparisons.			Year 6: <ul style="list-style-type: none"> Solve problems involving relative sizes of quantities; use fractions and

				<ul style="list-style-type: none"> • multiples to scale up/down. • Solve problems involving the calculation of percentages and percentage change; link to FDP equivalence. • Use ratio language and notation (a:b) to describe relationships; solve correspondence problems.
J: Algebra	Foundations are laid earlier via generalising patterns, properties and relationships across domains.			Year 6: <ul style="list-style-type: none"> • Use simple formulae and function machines; generate and describe linear number sequences. • Express missing number problems algebraically; find pairs of numbers that satisfy equations with two unknowns. • Enumerate possibilities of combinations (systematic listing).
K: Fluency & Number Facts	<ul style="list-style-type: none"> • Automaticity with bonds to 10; subitising to 5 (and 10); doubles/halves to 10. • Daily practice using structured images (rekenrek, tens frames). 	<ul style="list-style-type: none"> • Bonds within 20; flexible bridging 10; rapid recall of 2, 5, 10 facts. • Continue daily fluency sessions; introduce NumBots/TTRS where used. 	<ul style="list-style-type: none"> • Recall and use core addition and subtraction facts (to 20 → to 100). • Apply number facts to mental calculation with increasing efficiency. • Recall and use multiplication and division facts (Y3: 3,4,8; Y4: all tables). • Use inverse operations to check and solve problems. • Derive new facts from known ones using place value, commutativity, and scaling. • Demonstrate flexibility: choosing efficient strategies, not just performing procedures. 	<ul style="list-style-type: none"> • Recall and use all multiplication and division facts with automaticity. • Add, subtract, multiply, and divide using efficient mental strategies when appropriate. • Use place value, structure, and known facts to derive new facts. • Apply number-fact fluency to fractions, decimals, and percentages. • Use inverse operations confidently to check and solve problems. • Explain and justify strategy choices using mathematical reasoning. • Demonstrate flexibility: selecting the most efficient method, not the most familiar one.
L: Assessment & Ready-to-Progress (RtP)	Use RtP criteria to identify essential concepts and prerequisites. Plan pre-teaching/keep-up support where gaps appear.			

	Use low-stakes checks (exit tickets, mini-quizzes, hinge questions). Combine NCETM Curriculum Prioritisation with RtP for planning.
--	--