YEAR 5 MATHEMATICS LONG-TERM PLAN

Teaching for Mastery curriculum

ACADEMIC YEAR
2026 / 2027

Curriculum basis: NCETM Curriculum Prioritisation, the National Curriculum for England and the DfE Ready-to-Progress criteria. Suggested timings are indicative and should be adapted responsively.

Reviewed: _____
Maths Lead: _____

ONGOING FLUENCY AND ARITHMETIC PROVISION Year 5 pupils receive regular, responsive retrieval and arithmetic practice alongside the main mathematics lesson. Practice secures multiplication facts, number relationships and efficient calculation while remaining connected to conceptual understanding.

Half term	Unit	NCETM unit	Indicative time	Curriculum strand	Ready-to-Progress	PD / guidance	Online unit
Autumn 1	1	**Decimal fractions**	5 weeks	Number and place value / decimals	5NPV-1–4, 5NF-2	1.23, 1.24	Open
Autumn 1	2	**Money**	2 weeks	Measurement / calculation	National Curriculum	1.25	Open
Autumn 2	3	**Negative numbers**	2 weeks	Number and place value	National Curriculum	1.27	Open
Autumn 2 / Spring 1	4	**Short multiplication and short division**	6 weeks	Multiplication and division	5MD-3, 5MD-4	2.14, 2.15	Open
Spring 1	5	**Area and scaling**	5 weeks	Measurement / multiplicative reasoning	5G-2	2.16, 2.17	Open
Spring 2	6	**Calculating with decimal fractions**	3 weeks	Decimals / multiplication and division	5MD-1	2.19, 2.29	Open
Spring 2	7	**Factors, multiples and primes**	4 weeks	Multiplication and division / number facts	5MD-2	2.20, 2.21	Open
Summer 1	8	**Fractions**	7 weeks	Fractions / decimals / percentages	5NPV-5, 5F-1–3	3.6, 3.7, 3.10	Open
Summer 2	9	**Converting units**	2 weeks	Measurement	5NPV-5	DfE Year 5 guidance	Open
Summer 2	10	**Angles**	3 weeks	Geometry	5G-1	DfE Year 5 guidance	Open

Sequencing note: Follow the NCETM order unless a reviewed curriculum decision indicates otherwise. Build responsive retrieval and arithmetic into the year, and use spare days or weeks for statutory breadth, assessment, consolidation and re-teaching—not automatic acceleration.

YEAR 5 CURRICULUM PRIORITIES AND STATUTORY BREADTH

Big mathematical ideas in Year 5

- Develop a secure decimal place-value system through thousandths, linking fractions, decimals, measure and powers of ten.
- Use short multiplication and short division accurately, interpreting remainders according to context.
- Identify factors, multiples, prime numbers, square numbers and cube numbers, and use these properties to solve problems.
- Build multiplicative reasoning through area, scaling, conversions and calculations with decimal fractions.
- Find, compare and simplify equivalent fractions; calculate fractions of quantities and connect fractions, decimals and percentages.
- Estimate, measure and draw angles, and reason from angle facts and properties of shapes.
- Choose efficient representations and methods, explaining and checking the reasonableness of solutions.

Year 5 Ready-to-Progress criteria

- **5NPV–1** Know the multiplicative relationships between ones, tenths and hundredths: 10 tenths = 1 one; 100 hundredths = 1 one; 10 hundredths = 1 tenth.
- **5NPV–2** Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose them using standard and non-standard partitioning.
- **5NPV–3** Reason about the location of numbers with up to 2 decimal places, identify adjacent multiples of 1 and 0.1, and round to the nearest of each.
- **5NPV–4** Divide 1 into 2, 4, 5 and 10 equal parts, and read scales and number lines marked in units of 1 with these equal divisions.
- **5NPV–5** Convert between units of measure, including using common decimals and fractions.
- **5NF–1** Secure fluency in multiplication-table facts and corresponding division facts through continued practice.
- **5NF–2** Apply place-value knowledge to known additive and multiplicative number facts, scaling facts by one tenth or one hundredth.
- **5MD–1** Multiply and divide numbers by 10 and 100, understanding this as making a number 10 or 100 times the size, or one tenth or one hundredth times the size.
- **5MD–2** Find factors and multiples, including common factors and common multiples, and express a number as a product of 2 or 3 factors.
- **5MD–3** Multiply any whole number with up to 4 digits by a one-digit number using a formal written method.
- **5MD–4** Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately.
- **5F–1** Find non-unit fractions of quantities.
- **5F–2** Find equivalent fractions and understand that they have the same value and position in the linear number system.
- **5F–3** Recall decimal-fraction equivalents for 1/2, 1/4, 1/5 and 1/10, and for multiples of these proper fractions.
- **5G–1** Compare angles, estimate and measure angles in degrees, and draw angles of a given size.
- **5G–2** Compare areas and calculate the area of rectangles, including squares, using standard units.

National Curriculum domain	Where it is primarily addressed	Long-term planning requirement
Number and place value	Units 1 and 3; reinforced through Units 2, 6 and 9	Read, write, order and round numbers to at least 1,000,000; interpret negative numbers in context; count forwards and backwards through zero; read Roman numerals to 1,000.
Addition and subtraction	Units 1, 2 and 6; ongoing arithmetic and problem solving	Add and subtract whole numbers with more than four digits using formal methods; calculate mentally; use rounding to check; solve multi-step problems and determine the operation needed.
Multiplication and division	Units 4, 5 and 7; ongoing fact retrieval	Use factors, multiples, primes, squares and cubes; multiply up to four digits by one or two digits; divide up to four digits by one digit; solve scaling, rate and correspondence problems.
Fractions, decimals and percentages	Units 1, 6 and 8	Compare fractions with related denominators; convert mixed and improper fractions; add and subtract fractions; multiply fractions by whole numbers; read decimals to 3 places; connect common fractions, decimals and percentages.
Measurement	Units 2, 5 and 9	Convert metric units and use approximate imperial equivalences; calculate perimeter of composite shapes, area of rectangles and irregular shapes, and estimate volume and capacity; solve measure and time problems.
Geometry	Unit 10; links in Units 3 and 5; supplementary shape work	Identify 3D shapes from 2D representations; draw and classify angles; use angle facts at a point and on a straight line; distinguish regular and irregular polygons; reflect and translate in coordinate grids.
Statistics	Planned supplementary unit or integrated curriculum opportunities	Solve comparison, sum and difference problems using line graphs; complete, read and interpret information in tables, including timetables.

IMPORTANT COVERAGE CHECK The NCETM units provide a coherent framework but do not make every statutory Year 5 objective equally visible. Teachers must supplement where necessary—particularly whole-number place value to 1,000,000, two-digit multiplication, statistics, 3D shape, translations and reflections, volume and the full range of fraction calculations.

PLANNING, REPRESENTATION, ASSESSMENT AND REVIEW

Key representations and manipulatives

- Place-value charts, counters and Gattegno-style grids for decimals, scaling and powers-of-ten relationships.
- Number lines and bar models for negative numbers, comparison, rounding and multi-step contexts.
- Place-value counters, area models and partitioning diagrams leading to short multiplication and short division.
- Arrays, factor trees, multiplication grids and Venn or sorting diagrams for factors, multiples and primes.
- Fraction strips, Cuisenaire rods, number lines and bar models for equivalence, fractions of quantities and fraction-decimal-percentage links.
- Square grids, tiles, rulers, protractors, conversion charts and practical measuring equipment for area, angles and units.

Mathematical language and talk

- Explicitly teach tenth, hundredth, thousandth, decimal place, factor, multiple, prime, composite, square, cube, product, quotient and remainder.
- Develop fraction language including equivalent, simplify, mixed number, improper fraction, percentage and proportion.
- Use area, square unit, scale factor, conversion, metric, imperial, degree, reflex, regular and irregular precisely.
- Expect pupils to articulate the effect of multiplying or dividing by powers of ten without relying on “moving digits” shortcuts.
- Use stem sentences to compare strategies, justify equivalence and explain how a representation reveals mathematical structure.

Assessment checkpoints

- Entry: use Year 4 transition evidence to check place value, table fluency, written calculation and fraction foundations.
- After Unit 1: assess decimal composition, comparison, rounding and calculation across ones and tenths.
- After Unit 4: check accurate short multiplication and division, including interpretation of remainders.
- After Unit 7: assess factors, multiples, primes and the use of multiplicative structure in problems.
- After Unit 8: assess fractions of quantities, equivalence and fraction-decimal-percentage connections.
- End of term: triangulate teacher judgement, independent work, NCETM questions and the school’s agreed summative assessment.
- End of year: confirm statutory breadth and secure Ready-to-Progress knowledge for Year 6.

Adaptive teaching and responsive pacing

- Maintain the same ambitious focus while varying representation, language, scaffold, grouping and the amount of guided practice.
- Use diagnostic questions and short pre-teaching to address gaps in multiplication facts, decimal place value and fraction equivalence.
- Keep models available through formal written methods so procedures remain connected to place value and multiplicative structure.
- Deepen through generalisation, proof, efficient method selection and unfamiliar contexts rather than moving early into Year 6 content.
- Use indicative timings responsively, preserving sufficient time for the extended fractions sequence and statutory breadth.

Before the half term	During teaching	At the review point
Check prior learning, unit outcomes, statutory objectives, likely misconceptions and required resources.	Use formative assessment to adapt pacing; annotate this plan where units are extended, condensed or supplemented.	Record coverage, pupils needing further support and any curriculum refinements for the following cohort.

Core planning sources: NCETM Year 5 curriculum map | NCETM Curriculum Prioritisation guidance | DfE Mathematics Guidance: Year 5 | National Curriculum: Mathematics KS1–2