

YEAR 5/6 MATHEMATICS LONG-TERM PLAN — CYCLE B

Teaching for Mastery curriculum | Mixed-age rolling programme

ACADEMIC YEAR
2026 / 2027

Curriculum basis: North West Maths Hub two-year rolling programme through the NCETM Curriculum Prioritisation materials, the National Curriculum for England and the DfE Ready-to-Progress criteria. Timings are indicative and should be adapted responsively.

Reviewed: _____
Maths Lead: _____

IMPLEMENTATION YEAR — START WITH CYCLE B This follows the source recommendation. Audit the existing Year 6 cohort's previous coverage carefully, with particular attention to Year 6 Unit 14: Draw, compose and decompose shapes.

Half term	Unit	Mixed-age unit	Indicative time	Source / role	Ready-to-Progress	PD / guidance	Online
Autumn 1	1	Calculating using knowledge of structures (1)	4 weeks	Y6 U1 • Core	6AS/MD–1, 6AS/MD–2	1.28, 1.29	Open
Autumn 1	2	Multiples of 1,000	1 week	Y6 U2 • Prerequisite	Builds 3/4NPV	1.26	Open
Autumn 1	3	Numbers up to 10,000,000	2 weeks	Y6 U3 • Core	6NPV–1 to 6NPV–4	1.30	Open
Autumn 2	4	Decimal fractions	2 weeks	Y5 U1 • Anchor	5NPV–1, 5NPV–2	1.23, 1.24	Open
Autumn 2	5	Fractions	2 weeks	Y5 U8 • Anchor	5F–1	3.6	Open
Autumn 2 / Spring 1	6	Multiplication and division	4 weeks	Y6 U5 • Anchor	6AS/MD–2	2.18, 2.23–2.25	Open
Spring 1	7	Area, perimeter, position and direction	2 weeks	Y6 U6 • Full	National Curriculum	2.30	Open
Spring 1 / 2	8	Fractions and percentages	5 weeks	Y6 U7 • Anchor	6F–1 to 6F–3	3.8–3.10	Open
Spring 2	9	Statistics	2 weeks	Y6 U8 • Full	National Curriculum	School resources	Open
Spring 2	10	Ratio and proportion	2 weeks	Y6 U9 • Full	6AS/MD–3	2.27	Open
Summer 1	11	Revision for KS2 SATs (Cycle A content and light-touch measures/angles)	4 weeks	Parallel Y5/Y6	Diagnostic review	School plan	School
Summer 1	12	KS2 SATs week / parallel Year 5 curriculum	1 week	School provision	Statutory / Y5 learning	School plan	School
Summer 1	13	Mean average	1 week	Y6 U13 • Ongoing	National Curriculum	2.26	Open
Summer 2	14	Draw, compose and decompose shapes	2 weeks	Y6 U14 • Full	6G–1	Y6 unit guidance	Open
Summer 2	15	Calculating using knowledge of structures (2)	2 weeks	Y6 U10 • Full	6AS/MD–2	1.29	Open
Summer 2	16	Solving problems with two unknowns	1 week	Y6 U11 • Ongoing	6AS/MD–4	1.31	Open
Summer 2	17	Order of operations	2 weeks	Y6 U12 • Ongoing	National Curriculum	2.22, 2.28	Open

Sequencing note: Follow the Year B sequence from the mixed-age guidance. Negative numbers are an ongoing strand in Cycle B, having been taught in full in Cycle A. Use assessment to adapt pace, not to accelerate Year 5 pupils indiscriminately into Year 6 endpoints.

YEAR 5/6 CYCLE B CURRICULUM PRIORITIES

Big mathematical ideas in Cycle B

- Understand and use additive and multiplicative structures to derive related calculations and choose efficient methods.
- Connect powers of ten from hundredths to ten million; compose, decompose, locate and round large numbers and decimal fractions.
- Use decimal-fraction and fraction anchor units to secure prerequisites for shared upper-Key-Stage-2 learning.
- Develop formal multiplication and division while keeping written procedures connected to place value, equivalence and compensation.
- Simplify, compare and calculate with fractions, then connect fractions, decimals and percentages.
- Apply multiplicative reasoning to area, perimeter, ratio, proportion and scale.
- Develop algebraic and statistical thinking through two unknowns, order of operations, mean average and data interpretation.

Cycle B Ready-to-Progress priorities

- 6AS/MD–1 Quantify additive and multiplicative relationships between numbers.
- 6AS/MD–2 Derive related calculations using arithmetic properties, inverses and place value.
- 6NPV–1–4 Connect powers of ten; compose, locate, round and divide intervals from hundredths to ten million.
- 5NPV–1–2 Secure tenths/hundredths equivalence and place value to two decimal places.
- 5F–1 Find non-unit fractions of quantities.
- 6F–1 Simplify fractions using common factors.
- 6F–2 Express fractions in a common denomination.
- 6F–3 Compare fractions using reasoning or common denominators.
- 6AS/MD–3 Solve problems involving ratio relationships.
- 6G–1 Draw, compose and decompose shapes from given properties.
- 6AS/MD–4 Solve problems with two unknowns.

Anchor units	Ongoing units	Shared teaching, different depth
Decimal fractions, fractions, multiplication and division, and fractions/percentages provide the essential shared prerequisites. They introduce new learning for Year 5 and deliberate overlearning or extension for Year 6.	Negative numbers, mean average, two unknowns and order of operations are taught fully in one cycle and then applied in context across both years to strengthen retention and transfer.	Teach the same mathematical structure together, then vary examples, scaffolds, independent practice and expected generalisation so that each year group meets its own statutory endpoint.

MIXED-AGE PRINCIPLE The rolling programme supports whole-class teaching, but it does not remove year-group expectations. Planning and assessment must distinguish Year 5 prerequisite security from Year 6 depth, application and statutory outcomes.

YEAR 5/6 CYCLE B — STATUTORY BREADTH AND YEAR-GROUP EMPHASIS

National Curriculum domain	Shared Cycle teaching	Year 5 emphasis	Year 6 emphasis
Number and place value	Units 2–4; negative numbers ongoing; powers-of-ten relationships throughout.	Read, write, order and round to 1,000,000; secure decimals to 3 places and interpret negative numbers in context.	Read, write, order and round to 10,000,000; connect powers of ten from hundredths to ten million and calculate with negative numbers.
Addition and subtraction	Units 1 and 15; derived facts, equivalence, compensation and multi-step contexts.	Add and subtract whole numbers with more than four digits; choose mental or written methods and solve multi-step problems.	Use efficient mental and written calculation with integers and decimals; reason from structure and solve multi-step problems.
Multiplication and division	Units 1, 6, 10, 15 and 17; ongoing factual fluency.	Secure short multiplication/division, factor knowledge and contextual interpretation of remainders.	Use long multiplication and long division, order of operations and efficient derived calculation.
Fractions, decimals and percentages	Units 4, 5 and 8.	Secure equivalence, fractions of quantities, mixed numbers and fraction-decimal-percentage connections.	Simplify, compare and calculate with fractions; multiply/divide fractions and solve percentage problems.
Ratio and algebra	Unit 10, Units 16–17 and structural reasoning across the cycle.	Develop scaling, correspondence and missing-number reasoning using representations.	Solve ratio/proportion problems, use simple algebra, solve two-unknown problems and apply order of operations.
Measurement	Unit 7 plus planned conversion and measure contexts.	Convert metric units; calculate perimeter and area; estimate volume and capacity.	Convert units using decimal notation; use formulae for area/volume and solve compound measure problems where appropriate.
Geometry	Units 7 and 14.	Reason about angles, properties, coordinates and transformations at Year 5 depth.	Draw and decompose shapes from properties; use coordinates, reflection and translation with Year 6 precision.
Statistics	Units 9 and 13.	Read and interpret tables, timetables and line graphs; solve comparison and difference questions.	Interpret pie charts and line graphs, construct appropriate representations and calculate mean average.

IMPORTANT COVERAGE CHECK Maintain a two-year coverage tracker and separate Year 5/Year 6 assessment records. The mixed-age sequence makes some statutory objectives more visible in one cycle than the other. During SATs revision, Year 5 pupils require planned parallel teaching and application rather than a reduced Year 6 revision diet.

PLANNING, REPRESENTATION, ASSESSMENT AND REVIEW

Key representations and manipulatives

- Place-value charts, counters and Gattegno-style grids for powers of ten, decimals and large-number structure.
- Bar models, comparison models and double number lines for additive/multiplicative relationships, ratio and percentage.
- Fraction strips, Cuisenaire rods and number lines for equivalence, common denominator and fractions of quantities.
- Arrays, area models and partitioning diagrams connecting multiplication/division methods to structure.
- Coordinate grids, shape construction, protractors, rulers and squared paper for geometry and measure.
- Tables, line graphs, pie charts and equal-share models for statistics and mean average.

Assessment checkpoints

- Entry: audit both cohorts' prior coverage, especially the existing Year 6 cohort entering halfway through the cycle.
- After Unit 3: assess powers-of-ten relationships, large-number place value, scales and rounding.
- After Unit 6: assess formal multiplication/division and whether Year 5 and Year 6 pupils meet different method expectations.
- After Unit 8: assess fraction understanding, common denominator and fraction-decimal-percentage connections.
- Before SATs: use diagnostic evidence to target Year 6 revision while preserving planned Year 5 teaching.
- End of cycle: confirm statutory breadth separately for Year 5 and Year 6 and record prerequisites for Cycle A.

Mathematical language and talk

- Explicitly teach additive relationship, multiplicative relationship, equivalence, compensation, inverse, power of ten and integer.
- Use factor, multiple, prime, divisor, quotient, remainder, common factor and common multiple precisely.
- Develop numerator, denominator, equivalent, simplify, common denominator, percentage, proportion and ratio language.
- Use scale factor, variable, expression, unknown, order of operations, mean, frequency and sector where appropriate.
- Expect pupils to compare methods, justify efficiency and explain how representations expose the mathematical structure.

Adaptive teaching and responsive pacing

- Maintain a shared mathematical focus while varying numbers, representations, scaffolding, guided practice and independent endpoint.
- Use anchor units for Year 5 new learning and Year 6 overlearning; do not assume identical starting points.
- Keep models visible through formal methods so procedures remain connected to place value and multiplicative structure.
- Use split factual-fluency inputs where needed, as recommended in the source guidance.
- Provide Year 5 with a parallel curriculum during Year 6 SATs preparation and assessment week.
- Deepen through proof, generalisation and efficient choice rather than moving Year 5 pupils prematurely through Year 6 content.

FIRST-YEAR IMPLEMENTATION CHECK Confirm whether the incoming Year 6 cohort has already secured content from the first half of the rolling programme. The source specifically highlights Year 6 Unit 14, Draw, compose and decompose shapes, as requiring careful coverage decisions in the first implementation year.

FACTUAL FLUENCY Provide regular, often split, inputs so Year 5 pupils consolidate multiplication facts, scaling and decimal-place-value strategies while Year 6 pupils secure arithmetical proficiency across the Key Stage 2 Ready-to-Progress criteria.

Before the half term	During teaching	At the review point
Check prior learning for both year groups, identify prerequisite gaps, select shared representations and define separate success criteria.	Use formative assessment to vary examples, scaffolding and independent application while preserving the shared mathematical structure.	Record Year 5 and Year 6 coverage separately, note pupils needing further support and refine the next cycle for the following cohort.

Core planning sources: North West Maths Hub two-year rolling programme (school PDF) | [NCETM Year 5 curriculum map](#) | [NCETM Year 6 curriculum map](#)