

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

Teaching for Mastery curriculum | Mixed-age rolling programme

ACADEMIC YEAR
2027 / 2028

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: _____

SECOND YEAR OF THE ROLLING PROGRAMME — CYCLE A Build directly on Cycle B evidence. Units identified as ongoing should be deliberately revisited in context across both years.

Half term	Unit	Mixed-age unit	Indicative time	Source / role	Ready-to-Progress	PD / guidance	Online
Autumn 1	1	Decimal fractions	5 weeks	Y5 U1 • Anchor	5NPV–1 to 5NPV–4, 5NF–2	1.23, 1.24	Open
Autumn 1	2	Money	2 weeks	Y5 U2 • Full	National Curriculum	1.25	Open
Autumn 2	3	Negative numbers	2 weeks	Y5 U3 • Ongoing	National Curriculum	1.27	Open
Autumn 2	4	Short multiplication and short division	4 weeks	Y5 U4 • Full	5MD–3, 5MD–4	2.14, 2.15	Open
Autumn 2 / Spring 1	5	Multiplication and division (long methods review/introduction)	2 weeks	Y6 U5 • Anchor	6AS/MD–2	2.23, 2.24	Open
Spring 1	6	Fractions	5 weeks	Y5 U8 • Anchor	5NPV–5, 5F–1 to 5F–3	3.6, 3.7, 3.10	Open
Spring 2	7	Fractions and percentages	1 week	Y6 U7 • Review	6F–1 to 6F–3	3.8–3.10	Open
Spring 2	8	Calculating with decimal fractions	3 weeks	Y5 U6 • Full	5MD–1	2.19, 2.29	Open
Spring 2	9	Area and scaling	2 weeks	Y5 U5 • Full	5G–2	2.16, 2.17	Open
Summer 1	10	Revision for KS2 SATs (including Cycle B content)	4 weeks	Parallel Y5/Y6	Diagnostic review	School plan	School
Summer 1	11	KS2 SATs week / parallel Year 5 curriculum	1 week	School provision	Statutory / Y5 learning	School plan	School
Summer 1 / 2	12	Factors, multiples and primes	3 weeks	Y5 U7 • Full	5MD–2	2.20, 2.21	Open
Summer 2	13	Converting units	2 weeks	Y5 U9 • Full	5NPV–5	Y5 guidance	Open
Summer 2	14	Angles	3 weeks	Y5 U10 • Full	5G–1	Y5 guidance	Open

Sequencing note: Follow Cycle A after pupils have experienced Cycle B. Order of operations, solving problems with two unknowns and mean average are ongoing applications in Cycle A, having been taught fully in Cycle B.

YEAR 5/6 CYCLE A CURRICULUM PRIORITIES

Big mathematical ideas in Cycle A

- Develop a secure decimal place-value system through thousandths and connect decimals to fractions, measures and powers of ten.
- Use negative numbers in context and apply them across both cycles.
- Secure short multiplication and short division while introducing or reviewing long methods for older pupils.
- Develop fraction equivalence, fractions of quantities and fraction-decimal-percentage connections.
- Calculate with decimal fractions and apply multiplicative reasoning to money, area, scaling and conversion.
- Identify factors, multiples and primes, and use these structures to simplify and solve problems.
- Estimate, measure and draw angles, and connect geometry and measure to multiplicative reasoning.

Cycle A Ready-to-Progress priorities

- 5NPV–1–4 Secure decimal structure, place value, location, rounding and scales to two decimal places.
- 5NF–2 Scale known additive and multiplicative facts by one tenth or one hundredth.
- 5MD–3–4 Use short multiplication/division and interpret remainders in context.
- 6AS/MD–2 Derive related calculations and connect long methods to arithmetic properties and place value.
- 5NPV–5 Convert between units using common decimals and fractions.
- 5F–1–3 Find fractions of quantities, identify equivalent fractions and recall common decimal equivalents.
- 6F–1–3 Review simplification, common denominator and fraction comparison for older pupils.
- 5MD–1 Multiply/divide by 10 and 100 and calculate with decimal fractions.
- 5MD–2 Find factors, multiples, common factors/multiples and products of factors.
- 5G–1–2 Measure/draw angles and calculate area of rectangles.

Anchor units	Ongoing units	Shared teaching, different depth
Decimal fractions, long multiplication/division review and fractions provide the essential bridge between the two year groups. The younger cohort gains new foundations while the older cohort consolidates and applies them.	Negative numbers are taught fully in Cycle A. Order of operations, two unknowns and mean average are revisited in context after being taught fully in Cycle B.	Shared models and stem sentences support whole-class teaching. Year 5 pupils secure core methods and concepts; Year 6 pupils apply, generalise and connect them to more complex contexts and SATs readiness.

MIXED-AGE PRINCIPLE Cycle A is not a repeat of separate Year 5 and Year 6 schemes. It deliberately interleaves units from both years so that prerequisite learning is secure and shared teaching remains mathematically coherent.

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

National Curriculum domain	Shared Cycle teaching	Year 5 emphasis	Year 6 emphasis
Number and place value	Units 1 and 3; decimal calculation and conversion throughout.	Secure numbers to 1,000,000, decimals to 3 places, rounding and negative numbers in context.	Apply powers-of-ten understanding to larger numbers and decimals; maintain fluency with negative numbers from Cycle A.
Addition and subtraction	Money, decimal calculation, ongoing arithmetic and problem solving.	Use formal and mental methods with whole numbers and decimals and solve multi-step problems.	Select efficient strategies for integers and decimals, using equivalence, compensation and inverse relationships.
Multiplication and division	Units 4, 5, 8 and 12; factual fluency throughout.	Secure short methods, factors, multiples, primes and contextual remainder interpretation.	Review and apply long methods, order of operations and efficient derived calculation from Cycle B.
Fractions, decimals and percentages	Units 1, 6, 7 and 8.	Secure equivalence, fractions of quantities, mixed numbers and common fraction-decimal-percentage equivalents.	Apply simplification, common denomination, fraction calculation and percentage reasoning at Year 6 depth.
Ratio and algebra	Area/scaling plus ongoing Cycle B units.	Develop scaling, correspondence and missing-number reasoning.	Apply ratio/proportion, variables, two unknowns and order of operations in rich contexts.
Measurement	Units 2, 9 and 13; measure contexts throughout.	Convert metric units; use common imperial approximations; calculate perimeter, area and volume estimates.	Apply conversion and formulae to compound problems, drawing on Cycle B area/perimeter work.
Geometry	Units 9 and 14; Cycle B shape/position retained.	Measure/draw angles, reason from angle facts and classify shapes.	Apply angle facts, coordinates, transformations and shape construction across the two-year programme.
Statistics	Mean average ongoing; data interpretation in revision and wider curriculum.	Read tables, timetables and line graphs; solve comparison, sum and difference problems.	Interpret line graphs and pie charts and apply mean average in context.

IMPORTANT COVERAGE CHECK Review coverage across both cycles rather than judging Cycle A in isolation. Maintain a two-year tracker for geometry, statistics, ratio/algebra and Year 6-specific content. During SATs preparation, plan parallel Year 5 teaching and retain evidence against Year 5 statutory expectations.

PLANNING, REPRESENTATION, ASSESSMENT AND REVIEW

Key representations and manipulatives

- Place-value charts, counters and Gattegno-style grids for tenths, hundredths, thousandths and scaling by powers of ten.
- Number lines and bar models for negative numbers, money, comparison, rounding and multi-step problems.
- Arrays, area models and partitioning diagrams leading to short and long multiplication/division.
- Fraction strips, Cuisenaire rods and ratio-style models for equivalence, simplification and FDP connections.
- Area models, square units, conversion charts and practical measuring equipment for area, scaling and units.
- Protractors, rulers, angle facts diagrams and varied shapes for geometry.

Mathematical language and talk

- Explicitly teach tenth, hundredth, thousandth, decimal place, negative integer, factor, multiple, prime and composite.
- Use dividend, divisor, quotient, remainder, short multiplication, short division, long multiplication and long division precisely.
- Develop equivalent, simplify, mixed number, improper fraction, percentage, proportion and scale factor language.
- Use area, perimeter, conversion, metric, imperial, degree, reflex, regular and irregular accurately.
- Expect pupils to compare methods, explain efficiency and connect representations to formal notation.

Assessment checkpoints

- Entry: use Cycle B records to check decimal place value, fraction foundations, multiplication facts and formal methods.
- After Unit 1: assess decimal composition, location, rounding and scaling facts.
- After Unit 5: distinguish Year 5 security in short methods from Year 6 application of long methods.
- After Units 6–7: assess equivalence, fractions of quantities and older pupils' Year 6 fraction knowledge.
- After Unit 9: assess decimal calculation, area and scaling connections.
- Before SATs: target Year 6 gaps while preserving planned Year 5 curriculum and assessment.
- End of Cycle A: confirm complete two-year statutory coverage and transition information for the next cohort.

Adaptive teaching and responsive pacing

- Use a common representation and mathematical question, then adjust number range, scaffolding, recording and expected reasoning.
- Use anchor units to consolidate Year 6 without limiting Year 5 access to ambitious new learning.
- Provide targeted pre-teaching for decimal and fraction prerequisites and remove scaffolds as understanding develops.
- Keep written methods connected to place value and distributive structure through area and partitioning models.
- Use split factual-fluency inputs where the year groups require different fact or strategy consolidation.
- Provide Year 5 with purposeful curriculum learning during Year 6 SATs revision and assessment.

CYCLE CONTINUITY CHECK Use Cycle B assessment and coverage records when selecting learning outcomes in the condensed Year 6 review units. The source guidance expects teachers to exercise professional judgement about which outcomes are new, secure or ready for deeper application.

FACTUAL FLUENCY Year 5 pupils should secure multiplication facts, short methods and decimal scaling; Year 6 pupils should consolidate the full Key Stage 2 arithmetic repertoire. Split inputs are appropriate when shared whole-class teaching would not provide sufficient practice.

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](#)