

WHOLE-YEAR OVERVIEW - 2026-2027

Subject Area Topic: Mixed-Age KS3 Mathematics

Three 45-minute lessons per week. The final two weeks of each half term are protected for assessment/checkpoint and misconception teaching.

Half Term / Theme	Core Curriculum Focus	Teaching Weeks	Assessment Cycle	Length
Autumn 1 'Equality & Diversity'	Secure Number and Calculation	Weeks 1-6: number foundations, calculation, directed numbers, BIDMAS, powers, factors and multiples	Week 7 Checkpoint; Week 8 Misconceptions	8 weeks
Autumn 2 'Living in the Wider World'	Fractions, Decimals, Percentages and Money	Weeks 1-5: fraction sense and calculation, decimals, FDP equivalence, percentages and financial maths	Week 6 Assessment; Week 7 Misconceptions	7 weeks
Spring 1 'The Circle of Life'	Algebra, Sequences and Inequalities	Weeks 1-4: expressions, substitution, formulae, equations, sequences and inequalities	Week 5 Checkpoint; Week 6 Misconceptions	6 weeks
Spring 2 'Conflict'	Shape, Space and Measure	Weeks 1-3: angles and properties, perimeter and area, metric measure, nets and volume	Week 4 Assessment; Week 5 Misconceptions	5 weeks
Summer 1 'Health & Leisure'	Ratio, Proportion, Statistics and Probability	Weeks 1-5: ratio, sharing, direct proportion, data, averages and probability	Week 6 Checkpoint; Week 7 Misconceptions	7 weeks
Summer 2 'Crime & Punishment'	Coordinates, Graphs, Transformations and Functional Maths	Weeks 1-5: coordinates, transformations, graphs, time/rates and cumulative problem solving	Week 6 Assessment; Week 7 Misconceptions	7 weeks

Fluency

Secure the essential method through carefully varied practice.

Apply

Use the method in context, choose information or complete more than one step.

Mastering

Explain, compare, justify, generalise or solve an unfamiliar problem.

Autumn 1 – 'Equality & Diversity'

Subject Area Topic: Secure Number and Calculation | Weeks 1-4 of 8

Length		8 weeks	Teaching time		6 teaching weeks / 18 lessons
Assessment		Week 7 Checkpoint; Week 8 Misconceptions	Core purpose		Establish secure number sense and calculation methods that support every later unit.
Week	Subject Area Topic and Three Lessons	Fluency - Apply - Mastering	Notes / Links / Interleaving	Access / Additional Higher Content	
1	Baseline, place value and ordering L1: Low-stakes diagnostic using number, calculation and mathematical language. L2: Read and represent integers and decimals on place-value charts and number lines. L3: Compare, order and round integers and decimals to an appropriate degree of accuracy.	Fluency: Read, partition and order familiar positive integers and decimals. Apply: Choose rounding or ordering strategies in short contexts. Mastering: Explain the effect of place value and create numbers satisfying several conditions.	Vocabulary: place value, digit, integer, decimal, negative, ascending, descending, round Retrieve: number bonds, times-table facts, reading scales	Access: Use place-value counters/charts, number lines, digit cards and reduced language. Additional Higher Content: Explain the effect of place value and create numbers satisfying several conditions.	
2	Addition and subtraction L1: Use mental strategies and estimation for addition and subtraction. L2: Use column methods for integers and decimals, including exchanges. L3: Solve one- and two-step problems involving money, measures and change.	Fluency: Accurately calculate using familiar numbers and a modelled method. Apply: Select mental or written methods and interpret answers in context. Mastering: Compare methods, detect errors and solve multi-step problems with missing information.	Vocabulary: sum, difference, total, estimate, exchange, inverse Retrieve: place value and rounding	Access: Grid paper, worked examples, aligned decimals, bar models and calculator check after method. Additional Higher Content: Compare methods, detect errors and solve multi-step problems with missing information.	
3	Directed numbers L1: Order positive and negative numbers on horizontal and vertical number lines. L2: Add and subtract directed numbers using movement and zero pairs. L3: Multiply and divide directed numbers; connect sign rules to repeated patterns.	Fluency: Use number lines/counters for simple directed calculations. Apply: Apply directed numbers to temperature, floors, scores and money owed. Mastering: Explain sign rules, compare strategies and solve multi-step directed-number problems.	Vocabulary: directed, positive, negative, zero, opposite, increase, decrease Retrieve: addition/subtraction and number-line direction	Access: Two-colour counters, large number lines, temperature scales and sentence stems. Additional Higher Content: Explain sign rules, compare strategies and solve multi-step directed-number problems.	
4	Multiplication and division L1: Secure multiplication facts, related division facts and mental strategies. L2: Use formal written multiplication and division with integers. L3: Multiply and divide decimals in money and measure contexts.	Fluency: Complete modelled calculations with controlled numbers. Apply: Choose a method and solve contextual multiplication/division problems. Mastering: Reason about remainders, scaling and whether an answer is reasonable.	Vocabulary: product, multiple, factor, quotient, divisor, remainder Retrieve: place value, inverse operations, estimation	Access: Multiplication grids, arrays, chunked division and calculators where method is not the focus. Additional Higher Content: Reason about remainders, scaling and whether an answer is reasonable.	
Notes / Links / Interleaving: Retrieval is cumulative and selected from prior learning and assessment evidence.			Additional Higher Content: Deepen the same concept through explanation, proof, generalisation and unfamiliar problems.		

Autumn 1 – 'Equality & Diversity'

Subject Area Topic: Secure Number and Calculation | Weeks 5-8 of 8

Length		8 weeks	Teaching time		6 teaching weeks / 18 lessons
Assessment		Week 7 Checkpoint; Week 8 Misconceptions	Core purpose		Establish secure number sense and calculation methods that support every later unit.
Week	Subject Area Topic and Three Lessons	Fluency - Apply - Mastering	Notes / Links / Interleaving		Access / Additional Higher Content
5	Order of operations, powers and roots L1: Use brackets and the agreed order of operations in simple calculations. L2: Recognise square and cube numbers and find familiar square/cube roots. L3: Complete mixed calculations and use estimation/inverse operations to check.	Fluency: Follow a step-by-step BIDMAS structure with whole numbers. Apply: Apply BIDMAS to calculations containing brackets, powers and negatives. Mastering: Insert symbols/brackets to make statements true and explain why common errors occur.	Vocabulary: operation, bracket, power, square, cube, root, evaluate Retrieve: four operations and multiplication facts		Access: Colour-code operations, one line per step, calculator verification after reasoning. Additional Higher Content: Insert symbols/brackets to make statements true and explain why common errors occur.
6	Factors, multiples, primes and cumulative problem solving L1: List factors and multiples; identify prime and composite numbers. L2: Find simple HCF and LCM using lists or factor diagrams. L3: Use number knowledge in mixed multi-step problems and checkpoint preparation.	Fluency: Identify factors, multiples and primes using structured lists. Apply: Use HCF/LCM in grouping, timing and packaging contexts. Mastering: Explain efficient methods, justify divisibility and solve unfamiliar number problems.	Vocabulary: factor, multiple, prime, composite, common, HCF, LCM Retrieve: times tables, division, powers		Access: Factor cards, multiplication grids and practical grouping; Venn methods not required. Additional Higher Content: Explain efficient methods, justify divisibility and solve unfamiliar number problems.
7 CHECKPOINT	Checkpoint assessment week L1: Cumulative revision mapped to the HT1 core knowledge. L2: Complete the HT1 Checkpoint assessment. L3: Review, correct and create the class misconception profile.	Fluency: Demonstrate core methods independently. Apply: Apply number knowledge to accessible contexts. Mastering: Attempt reasoning and unfamiliar items without losing access to the paper.	Vocabulary: review, method, evidence, check, correct Retrieve: all HT1 knowledge plus selected prior KS2/KS3 foundations		Access: Reading-light paper, clear spacing, mostly 1-3 mark questions, reasonable calculator use. Additional Higher Content: Attempt reasoning and unfamiliar items without losing access to the paper.
8 MISCONCEPTIONS	Misconception week L1: Re-teach the most common whole-class number misconception. L2: Targeted group teaching based on checkpoint evidence. L3: Short re-check and transfer task to confirm corrected understanding.	Fluency: Secure the prerequisite or method that caused the error. Apply: Apply the corrected method in a changed context. Mastering: Explain the previous error and show why the corrected method works.	Vocabulary: misconception, strategy, correction, explain Retrieve: personal and class gaps from checkpoint		Access: Different representation, manipulatives, worked-example fading and flexible grouping. Additional Higher Content: Explain the previous error and show why the corrected method works.
Notes / Links / Interleaving: Retrieval is cumulative and selected from prior learning and assessment evidence.			Additional Higher Content: Deepen the same concept through explanation, proof, generalisation and unfamiliar problems.		

Autumn 2 – 'Living in the Wider World'

Subject Area Topic: Fractions, Decimals, Percentages and Money | Weeks 1-4 of 7

Length		7 weeks		Teaching time		5 teaching weeks / 15 lessons	
Assessment		Week 6 Assessment; Week 7 Misconceptions		Core purpose		Build connected understanding of fractions, decimals and percentages and apply it to financial contexts.	
Week	Subject Area Topic and Three Lessons		Fluency - Apply - Mastering		Notes / Links / Interleaving		Access / Additional Higher Content
1	Fraction sense and equivalence L1: Represent fractions using shapes, sets and number lines; identify numerator and denominator. L2: Generate equivalent fractions and simplify using common factors. L3: Compare and order fractions, including links to benchmark fractions.		Fluency: Recognise and represent common proper fractions. Apply: Use equivalence to compare and order fractions. Mastering: Justify ordering, create equivalent families and identify missing values.		Vocabulary: fraction, numerator, denominator, equivalent, simplify, proper, improper Retrieve: factors, division, number lines		Access: Fraction strips/walls, counters, bar models and visual benchmarks. Additional Higher Content: Justify ordering, create equivalent families and identify missing values.
2	Calculating with fractions L1: Add and subtract fractions with the same denominator. L2: Add and subtract fractions with related or different denominators. L3: Find fractions of amounts; multiply fractions by integers, with mixed numbers as extension.		Fluency: Use a visual model and common denominator in structured questions. Apply: Choose equivalence and complete calculations in short contexts. Mastering: Solve multi-step fraction problems and explain errors involving denominators.		Vocabulary: common denominator, equivalent, mixed number, improper, fraction of Retrieve: multiples, division and equivalence		Access: Fraction strips, multiplication grids, one change at a time, optional mixed-number challenge. Additional Higher Content: Solve multi-step fraction problems and explain errors involving denominators.
3	Decimal calculation L1: Read, order and multiply/divide decimals by 10, 100 and 1000. L2: Add and subtract decimals using place-value alignment. L3: Multiply and divide decimals in money and measure contexts.		Fluency: Use place-value charts and aligned written methods. Apply: Select operations in realistic decimal contexts. Mastering: Reason about decimal magnitude, estimate and correct plausible errors.		Vocabulary: decimal point, tenth, hundredth, thousandth, place holder, magnitude Retrieve: place value and four operations		Access: Place-value counters, grids, money and measurement models; avoid rule-only teaching. Additional Higher Content: Reason about decimal magnitude, estimate and correct plausible errors.
4	Fraction-decimal-percentage equivalence L1: Convert common fractions, decimals and percentages using models and known facts. L2: Find simple percentages of amounts using 10%, 5%, 1% and unitary methods. L3: Calculate percentage increase/decrease or reverse percentage as optional Mastering.		Fluency: Recall and use common equivalences and find simple percentages. Apply: Choose an efficient percentage strategy in context. Mastering: Compare strategies, solve unfamiliar percentage problems and justify estimates.		Vocabulary: percent, equivalent, convert, hundred, unitary, increase, decrease Retrieve: fractions of amounts and decimal place value		Access: Hundred grids, double number lines and percentage bars; calculators when the focus is interpretation. Additional Higher Content: Compare strategies, solve unfamiliar percentage problems and justify estimates.
Notes / Links / Interleaving:			Retrieval is cumulative and selected from prior learning and assessment evidence.		Additional Higher Content: Deepen the same concept through explanation, proof, generalisation and unfamiliar problems.		

Autumn 2 – ‘Living in the Wider World’

Subject Area Topic: Fractions, Decimals, Percentages and Money | Weeks 5-7 of 7

Length		7 weeks	Teaching time		5 teaching weeks / 15 lessons
Assessment		Week 6 Assessment; Week 7 Misconceptions	Core purpose		Build connected understanding of fractions, decimals and percentages and apply it to financial contexts.
Week	Subject Area Topic and Three Lessons	Fluency - Apply - Mastering	Notes / Links / Interleaving	Access / Additional Higher Content	
5	Money and financial maths L1: Calculate totals, change and simple budgets using pounds and pence. L2: Find discounts, sale prices and compare straightforward offers. L3: Solve best-buy, budget and multi-step financial problems.	Fluency: Complete accurate money calculations with clear layouts. Apply: Use percentages and unit pricing to make a decision. Mastering: Justify the best option, identify assumptions and create a viable budget.	Vocabulary: cost, price, change, budget, discount, sale, best buy, unit price Retrieve: decimal operations and percentages	Access: Realistic menus/receipts, money models, calculator choice and reduced reading load. Additional Higher Content: Justify the best option, identify assumptions and create a viable budget.	
6 ASSESSMENT	Assessment week L1: Cumulative revision mapped to HT2 and selected HT1 knowledge. L2: Complete the HT2 Assessment. L3: Review, correct and identify the misconception profile.	Fluency: Demonstrate core FDP and money methods. Apply: Apply methods in accessible real-life problems. Mastering: Reason across representations and justify financial decisions.	Vocabulary: review, convert, calculate, justify, correct Retrieve: HT2 plus core number calculation	Access: Clear diagrams, familiar contexts, accessible mark allocation and consistent conditions. Additional Higher Content: Reason across representations and justify financial decisions.	
7 MISCONCEPTIONS	Misconception week L1: Re-teach the highest-frequency fraction/decimal/percentage misconception. L2: Targeted group teaching and guided corrections. L3: Short re-check followed by a new money or FDP transfer problem.	Fluency: Secure the missing representation or calculation step. Apply: Use corrected understanding in context. Mastering: Explain why the original error was tempting and why it is incorrect.	Vocabulary: misconception, equivalence, method, representation, correction Retrieve: assessment errors and prerequisite number knowledge	Access: Return to concrete/visual models before symbolic practice; flexible grouping. Additional Higher Content: Explain why the original error was tempting and why it is incorrect.	
Notes / Links / Interleaving: Retrieval is cumulative and selected from prior learning and assessment evidence.			Additional Higher Content: Deepen the same concept through explanation, proof, generalisation and unfamiliar problems.		

Spring 1 - 'The Circle of Life'

Subject Area Topic: Algebra, Sequences and Inequalities | Weeks 1-3 of 6

Length		6 weeks	Teaching time		4 teaching weeks / 12 lessons	
Assessment		Week 5 Checkpoint; Week 6 Misconceptions	Core purpose		Make algebra meaningful through patterns, representations and balanced equations.	
Week	Subject Area Topic and Three Lessons		Fluency - Apply - Mastering		Notes / Links / Interleaving	Access / Additional Higher Content
1	Algebra language and simplifying L1: Distinguish expression, equation, formula, term, coefficient and variable. L2: Collect like terms using counters and visual grouping. L3: Use one- and two-step function machines and write expressions from operations.		Fluency: Identify parts of an expression and collect simple like terms. Apply: Move between words, function machines and algebraic expressions. Mastering: Create expressions satisfying conditions and explain why unlike terms cannot combine.		Vocabulary: variable, term, expression, equation, formula, coefficient, like term Retrieve: four operations and directed numbers	Access: Algebra tiles/counters, colour coding, boxes for unknowns and verbal rehearsal. Additional Higher Content: Create expressions satisfying conditions and explain why unlike terms cannot combine.
2	Substitution and formulae L1: Substitute positive integers into simple expressions. L2: Substitute into worded and familiar formulae using a clear order. L3: Form expressions and formulae from simple contexts; negatives as Mastering.		Fluency: Replace a variable and calculate one step at a time. Apply: Use formulae in perimeter, cost and pattern contexts. Mastering: Compare formulae, substitute negatives and explain common notation errors.		Vocabulary: substitute, value, evaluate, formula, input, output Retrieve: BIDMAS, multiplication and negative numbers	Access: Explicit multiplication signs first, substitution boxes, one line per step. Additional Higher Content: Compare formulae, substitute negatives and explain common notation errors.
3	Solving equations L1: Solve one-step equations using inverse operations and balance models. L2: Solve two-step linear equations with the unknown on one side. L3: Form and solve an equation from a short context; unknowns on both sides optional.		Fluency: Use balance diagrams and inverse operations with integer solutions. Apply: Choose and apply steps to solve and check equations. Mastering: Form equations, explain each step and solve unfamiliar structures.		Vocabulary: solve, inverse, balance, unknown, solution, check Retrieve: inverse operations and substitution	Access: Balance scales, algebra tiles, worked examples and consistent layout. Additional Higher Content: Form equations, explain each step and solve unfamiliar structures.
Notes / Links / Interleaving: Retrieval is cumulative and selected from prior learning and assessment evidence.			Additional Higher Content: Deepen the same concept through explanation, proof, generalisation and unfamiliar problems.			

Spring 1 - 'The Circle of Life'

Subject Area Topic: Algebra, Sequences and Inequalities | Weeks 4-6 of 6

Length		6 weeks		Teaching time		4 teaching weeks / 12 lessons			
Assessment		Week 5 Checkpoint; Week 6 Misconceptions		Core purpose		Make algebra meaningful through patterns, representations and balanced equations.			
Week		Subject Area Topic and Three Lessons		Fluency - Apply - Mastering		Notes / Links / Interleaving		Access / Additional Higher Content	
4		Sequences and inequalities L1: Continue arithmetic and visual sequences; describe term-to-term rules. L2: Generate terms and find a simple nth term for linear sequences. L3: Use <, >, <= and >=; represent and solve simple inequalities on a number line.		Fluency: Continue patterns and use inequality symbols correctly. Apply: Generate sequences from rules and represent inequality solutions. Mastering: Derive nth terms, compare rules and solve/justify one-step inequalities.		Vocabulary: sequence, term, rule, nth term, inequality, greater, less, at least, at most Retrieve: multiples, substitution and number lines		Access: Visual patterns, tables, large number lines and phrase-to-symbol matching. Additional Higher Content: Derive nth terms, compare rules and solve/justify one-step inequalities.	
5 CHECKPOINT		Checkpoint assessment week L1: Cumulative revision across HT3 and essential prior knowledge. L2: Complete the HT3 Checkpoint assessment. L3: Review, correct and identify algebra misconceptions.		Fluency: Demonstrate core algebraic procedures. Apply: Apply algebra to short patterns and contexts. Mastering: Reason, generalise and explain algebraic errors.		Vocabulary: review, represent, solve, substitute, justify Retrieve: HT3 plus number prerequisites		Access: Accessible notation, ample working space and method marks. Additional Higher Content: Reason, generalise and explain algebraic errors.	
6 MISCONCEPTIONS		Misconception week L1: Re-teach the highest-frequency algebra misconception using a new representation. L2: Targeted groups: notation, substitution, equations or sequences. L3: Re-check and transfer into a short reasoning problem.		Fluency: Secure the missing prerequisite or algebraic convention. Apply: Use the corrected method independently. Mastering: Explain the misconception and connect representations.		Vocabulary: misconception, convention, equality, inverse, correction Retrieve: checkpoint evidence		Access: Concrete-to-symbolic reteaching, sentence stems and faded scaffolds. Additional Higher Content: Explain the misconception and connect representations.	
Notes / Links / Interleaving: Retrieval is cumulative and selected from prior learning and assessment evidence.				Additional Higher Content: Deepen the same concept through explanation, proof, generalisation and unfamiliar problems.					

Spring 2 – 'Conflict'

Subject Area Topic: Shape, Space and Measure | Weeks 1-3 of 5

Length		5 weeks		Teaching time		3 teaching weeks / 9 lessons	
Assessment		Week 4 Assessment; Week 5 Misconceptions		Core purpose		Develop practical geometric knowledge with accurate language, measurement and calculation.	
Week	Subject Area Topic and Three Lessons		Fluency - Apply - Mastering		Notes / Links / Interleaving		Access / Additional Higher Content
1	Angles and properties of shape L1: Measure and draw angles; use angles on a line, around a point and vertically opposite. L2: Use the angle sum of triangles and identify triangle/quadrilateral properties. L3: Use parallel-line angle facts and polygon reasoning as Mastering.		Fluency: Measure, name and calculate missing angles using one fact. Apply: Combine angle facts and use shape properties in diagrams. Mastering: Explain angle relationships, justify missing angles and solve multi-step geometry.		Vocabulary: angle, degree, straight line, point, vertically opposite, triangle, quadrilateral, parallel Retrieve: addition/subtraction and equations		Access: Protractors with guided steps, angle templates, labelled diagrams and physical shapes. Additional Higher Content: Explain angle relationships, justify missing angles and solve multi-step geometry.
2	Perimeter and area L1: Calculate perimeter of rectangles and simple polygons. L2: Calculate area of rectangles, triangles and parallelograms. L3: Find area/perimeter of compound shapes; missing lengths as Mastering.		Fluency: Use formulae with all dimensions shown. Apply: Select the correct measure/formula in context. Mastering: Deduce missing dimensions, compare shapes and justify efficient methods.		Vocabulary: perimeter, area, length, width, base, height, square unit, compound Retrieve: multiplication, addition and substitution		Access: Squared paper, cut-and-rearrange models, formula triangles not required. Additional Higher Content: Deduce missing dimensions, compare shapes and justify efficient methods.
3	Metric measure and 3D shape L1: Convert common metric units and read scales accurately. L2: Identify faces, edges, vertices and valid nets of common 3D shapes. L3: Calculate volume of cuboids; surface area of cuboids as Mastering.		Fluency: Use conversion facts, physical solids and modelled volume calculations. Apply: Apply measure and volume in packaging/storage contexts. Mastering: Reason about nets, missing dimensions and surface area/volume comparisons.		Vocabulary: metric, convert, scale, face, edge, vertex, net, volume, surface area, cuboid Retrieve: place value, multiplication and area		Access: Rulers, measuring jugs, physical boxes/solids, unit cubes and deconstructed packaging. Additional Higher Content: Reason about nets, missing dimensions and surface area/volume comparisons.
Notes / Links / Interleaving: Retrieval is cumulative and selected from prior learning and assessment evidence.			Additional Higher Content: Deepen the same concept through explanation, proof, generalisation and unfamiliar problems.				

Spring 2 – ‘Conflict’

Subject Area Topic: Shape, Space and Measure | Weeks 4-5 of 5

Length		5 weeks	Teaching time		3 teaching weeks / 9 lessons
Assessment		Week 4 Assessment; Week 5 Misconceptions	Core purpose		Develop practical geometric knowledge with accurate language, measurement and calculation.
Week	Subject Area Topic and Three Lessons		Fluency - Apply - Mastering	Notes / Links / Interleaving	Access / Additional Higher Content
4 ASSESSMENT	Assessment week L1: Cumulative revision of angles, measure, area and 3D shape. L2: Complete the HT4 Assessment. L3: Review, correct and record geometric misconceptions.		Fluency: Demonstrate accurate core methods and language. Apply: Apply geometry and measure to diagrams and contexts. Mastering: Reason from properties and solve unfamiliar measurement problems.	Vocabulary: review, measure, property, calculate, justify Retrieve: HT4 plus relevant number knowledge	Access: Large clear diagrams, dimensions labelled, practical equipment where assessment purpose allows. Additional Higher Content: Reason from properties and solve unfamiliar measurement problems.
5 MISCONCEPTIONS	Misconception week L1: Re-teach the most common angle, area or unit misconception. L2: Targeted group practical work and guided correction. L3: Re-check with a changed diagram or measurement context.		Fluency: Secure the formula, unit or angle fact. Apply: Use the corrected knowledge independently. Mastering: Explain the error and compare valid methods.	Vocabulary: misconception, unit, formula, property, correction Retrieve: assessment evidence	Access: Physical models, tracing/cutting, colour-coded dimensions and worked-example fading. Additional Higher Content: Explain the error and compare valid methods.
Notes / Links / Interleaving: Retrieval is cumulative and selected from prior learning and assessment evidence.			Additional Higher Content: Deepen the same concept through explanation, proof, generalisation and unfamiliar problems.		

Summer 1 - 'Health & Leisure'

Subject Area Topic: Ratio, Proportion, Statistics and Probability | Weeks 1-4 of 7

Length		7 weeks		Teaching time		5 teaching weeks / 15 lessons	
Assessment		Week 6 Checkpoint; Week 7 Misconceptions		Core purpose		Use proportional and statistical reasoning to interpret and solve meaningful problems.	
Week	Subject Area Topic and Three Lessons		Fluency - Apply - Mastering		Notes / Links / Interleaving		Access / Additional Higher Content
1	Ratio meaning and equivalence L1: Interpret ratio notation using objects, diagrams and part-to-part comparisons. L2: Simplify ratios and generate equivalent ratios. L3: Connect ratio to fractions and scale diagrams.		Fluency: Write and simplify ratios with visual support. Apply: Use equivalent ratios in scaling and comparison. Mastering: Explain ratio-fraction links and solve reverse or missing-value problems.		Vocabulary: ratio, part, whole, equivalent, simplify, scale Retrieve: factors, fractions and division		Access: Counters, bar models, double number lines and practical mixtures. Additional Higher Content: Explain ratio-fraction links and solve reverse or missing-value problems.
2	Sharing in a ratio L1: Share a quantity in a two-part ratio using total parts. L2: Share in a three-part ratio and check the total. L3: Solve contextual or reverse ratio problems.		Fluency: Follow a structured total-parts method with integer answers. Apply: Apply sharing to money, quantities and measures. Mastering: Work backwards, compare methods and justify solutions.		Vocabulary: share, total parts, proportion, quantity, check Retrieve: division, multiplication and addition		Access: Ratio bars, counters, integer-friendly values and explicit checking. Additional Higher Content: Work backwards, compare methods and justify solutions.
3	Direct proportion and rates L1: Use the unitary method and ratio tables. L2: Scale recipes, maps and quantities up or down. L3: Compare unit prices, rates of pay or speed in accessible contexts.		Fluency: Find one unit then scale to the required amount. Apply: Choose a table or unitary method in context. Mastering: Solve multi-step proportion problems and justify best value.		Vocabulary: unitary, proportion, rate, scale factor, unit price, best value Retrieve: multiplication/division and money		Access: Ratio tables, real packaging/recipes and calculators when calculation is secondary. Additional Higher Content: Solve multi-step proportion problems and justify best value.
4	Collecting and representing data L1: Identify categorical/numerical and discrete/continuous data in accessible examples. L2: Use tally/frequency tables and construct bar or line charts with suitable scales. L3: Calculate and compare mean, median, mode and range.		Fluency: Read and complete tables/charts and find simple averages. Apply: Choose or interpret a representation and compare data sets. Mastering: Critique misleading scales, justify an average and solve missing-value problems.		Vocabulary: data, category, frequency, tally, scale, mean, median, mode, range Retrieve: four operations and reading scales		Access: Small data sets, pre-drawn axes, practical surveys and vocabulary matching. Additional Higher Content: Critique misleading scales, justify an average and solve missing-value problems.
Notes / Links / Interleaving: Retrieval is cumulative and selected from prior learning and assessment evidence.					Additional Higher Content: Deepen the same concept through explanation, proof, generalisation and unfamiliar problems.		

Summer 1 - 'Health & Leisure'

Subject Area Topic: Ratio, Proportion, Statistics and Probability | Weeks 5-7 of 7

Length		7 weeks	Teaching time	5 teaching weeks / 15 lessons
Assessment		Week 6 Checkpoint; Week 7 Misconceptions	Core purpose	Use proportional and statistical reasoning to interpret and solve meaningful problems.
Week	Subject Area Topic and Three Lessons	Fluency - Apply - Mastering	Notes / Links / Interleaving	Access / Additional Higher Content
5	Probability L1: Use probability language and place events on a 0-1 probability scale. L2: Calculate simple theoretical probabilities and list outcomes systematically. L3: Conduct an experiment, calculate relative frequency and compare with theory.	Fluency: Identify impossible to certain and calculate single-event probabilities. Apply: Use lists/tables for equally likely outcomes and interpret results. Mastering: Explain variation, critique claims and solve simple combined-event problems as extension.	Vocabulary: probability, event, outcome, impossible, certain, likely, theoretical, experimental Retrieve: fractions, decimals and data tables	Access: Coins, dice, spinners, practical trials and structured outcome tables. Additional Higher Content: Explain variation, critique claims and solve simple combined-event problems as extension.
6 CHECKPOINT	Checkpoint assessment week L1: Cumulative revision of ratio, proportion, data and probability. L2: Complete the HT5 Checkpoint assessment. L3: Review, correct and identify misconception priorities.	Fluency: Demonstrate core proportional and statistical methods. Apply: Apply methods in realistic contexts and representations. Mastering: Reason from data, compare claims and solve unfamiliar proportional problems.	Vocabulary: review, represent, compare, calculate, justify Retrieve: HT5 plus FDP and number prerequisites	Access: Reading-light contexts, clear charts and integer-friendly early questions. Additional Higher Content: Reason from data, compare claims and solve unfamiliar proportional problems.
7 MISCONCEPTIONS	Misconception week L1: Re-teach the most common ratio/data/probability misconception. L2: Targeted groups based on checkpoint item analysis. L3: Re-check and transfer into a new practical or graphical task.	Fluency: Secure the missing model or calculation method. Apply: Use corrected knowledge in a changed context. Mastering: Explain why the original conclusion was wrong and justify a corrected one.	Vocabulary: misconception, evidence, model, comparison, correction Retrieve: checkpoint evidence	Access: Practical equipment, bar models, smaller data sets and flexible grouping. Additional Higher Content: Explain why the original conclusion was wrong and justify a corrected one.
Notes / Links / Interleaving: Retrieval is cumulative and selected from prior learning and assessment evidence.			Additional Higher Content: Deepen the same concept through explanation, proof, generalisation and unfamiliar problems.	

Summer 2 - 'Crime & Punishment'

Subject Area Topic: Coordinates, Graphs, Transformations and Functional Maths | Weeks 1-4 of 7

Length		7 weeks		Teaching time		5 teaching weeks / 15 lessons	
Assessment		Week 6 Assessment; Week 7 Misconceptions		Core purpose		Connect mathematical representations and prepare pupils to use mathematics independently across unfamiliar contexts.	
Week	Subject Area Topic and Three Lessons		Fluency - Apply - Mastering		Notes / Links / Interleaving		Access / Additional Higher Content
1	Coordinates L1: Read and plot coordinates in the first quadrant and on axes. L2: Use all four quadrants and find missing coordinates in shapes. L3: Use coordinate reasoning to describe patterns, midpoints or simple geometric properties.		Fluency: Plot and read points accurately using a clear axis routine. Apply: Complete shapes and solve coordinate problems. Mastering: Generalise coordinate changes and justify missing points without plotting every step.		Vocabulary: coordinate, axis, origin, quadrant, horizontal, vertical, ordered pair Retrieve: negative numbers and scales		Access: Large grids, floor coordinates, colour-coded x/y and one quadrant before four. Additional Higher Content: Generalise coordinate changes and justify missing points without plotting every step.
2	Transformations L1: Describe and perform reflections and translations. L2: Describe and perform rotations about a centre. L3: Enlarge shapes with positive integer scale factors; negative/fractional scale factor optional.		Fluency: Use tracing paper or grids to complete one transformation. Apply: Describe transformations fully and combine simple steps. Mastering: Determine unknown transformations, compare invariants and justify results.		Vocabulary: reflection, translation, rotation, centre, clockwise, enlargement, scale factor Retrieve: coordinates, angles and shape properties		Access: Tracing paper, acetate, physical movement and sentence stems for full descriptions. Additional Higher Content: Determine unknown transformations, compare invariants and justify results.
3	Tables, straight-line and real-life graphs L1: Generate coordinate pairs from a simple rule or table and plot a straight line. L2: Interpret gradients informally and use graphs to find corresponding values. L3: Interpret distance-time, conversion or other real-life graphs; $y = mx + c$ as extension.		Fluency: Plot points from a completed table and read values. Apply: Complete tables, draw graphs and interpret sections in context. Mastering: Compare graphs, explain rate of change and solve missing-value or rule problems.		Vocabulary: table, graph, plot, scale, gradient, rate, intercept, conversion Retrieve: sequences, substitution and coordinates		Access: Pre-drawn axes, controlled scales, motion stories and graph matching. Additional Higher Content: Compare graphs, explain rate of change and solve missing-value or rule problems.
4	Time, rates and timetables L1: Read 12/24-hour time and calculate durations. L2: Interpret timetables and solve journey or schedule problems. L3: Use accessible rates such as speed, unit price or pay; compound-unit formulae as Mastering.		Fluency: Read times and calculate durations using timelines. Apply: Select information from a timetable and complete multi-step questions. Mastering: Compare routes/rates, justify decisions and solve unfamiliar time constraints.		Vocabulary: duration, timetable, interval, rate, speed, distance, time, unit Retrieve: subtraction, proportion and data tables		Access: Timelines, real timetables, highlighted information and calculators when appropriate. Additional Higher Content: Compare routes/rates, justify decisions and solve unfamiliar time constraints.
Notes / Links / Interleaving:			Retrieval is cumulative and selected from prior learning and assessment evidence.		Additional Higher Content: Deepen the same concept through explanation, proof, generalisation and unfamiliar problems.		

Summer 2 - 'Crime & Punishment'

Subject Area Topic: Coordinates, Graphs, Transformations and Functional Maths | Weeks 5-7 of 7

Length		7 weeks		Teaching time		5 teaching weeks / 15 lessons	
Assessment		Week 6 Assessment; Week 7 Misconceptions		Core purpose		Connect mathematical representations and prepare pupils to use mathematics independently across unfamiliar contexts.	
Week	Subject Area Topic and Three Lessons		Fluency - Apply - Mastering		Notes / Links / Interleaving		Access / Additional Higher Content
5	Cumulative functional problem solving L1: Identify the mathematics and relevant information in short everyday problems. L2: Complete mixed problems involving number, FDP, algebra, measure, ratio and data. L3: Plan, justify and present a solution to an unfamiliar multi-step task.		Fluency: Use prompts to choose an operation or representation. Apply: Combine two or more familiar methods and check the result. Mastering: Make assumptions explicit, compare approaches and communicate a complete mathematical argument.		Vocabulary: information, relevant, strategy, assumption, estimate, justify, solution Retrieve: cumulative retrieval across the year		Access: Chunked texts, diagrams, highlighters, method-choice prompts and collaborative rehearsal before independence. Additional Higher Content: Make assumptions explicit, compare approaches and communicate a complete mathematical argument.
6 ASSESSMENT	Assessment week L1: Cumulative revision of HT6 and selected essential knowledge from the year. L2: Complete the HT6 Assessment. L3: Review, correct and create transition priorities for the next curriculum stage.		Fluency: Demonstrate secure core knowledge independently. Apply: Apply mathematics across representations and contexts. Mastering: Reason, select methods and sustain a multi-step solution.		Vocabulary: review, select, represent, calculate, justify, reflect Retrieve: HT6 plus cumulative annual content		Access: Balanced paper with accessible entry, method marks and limited reading burden. Additional Higher Content: Reason, select methods and sustain a multi-step solution.
7 MISCONCEPTIONS	Misconception and transition week L1: Re-teach the highest-priority whole-class misconception. L2: Targeted groups address individual transition gaps. L3: Final re-check, reflection and personal next-step target.		Fluency: Secure one priority method or representation. Apply: Apply corrected knowledge in a new context. Mastering: Explain progress, justify a strategy and complete a transfer problem.		Vocabulary: misconception, progress, target, strategy, transfer Retrieve: assessment evidence and annual profile		Access: Individualised groups, evidence folders and clear next-step statements. Additional Higher Content: Explain progress, justify a strategy and complete a transfer problem.
Notes / Links / Interleaving: Retrieval is cumulative and selected from prior learning and assessment evidence.				Additional Higher Content: Deepen the same concept through explanation, proof, generalisation and unfamiliar problems.			