

Cavendish CE Primary School

Mathematics Long-Term Plan and Coverage Map: Reception, Y1/2, Y3/4 and Y5/6

At Cavendish CE Primary School, our mathematics curriculum is designed to help children become confident, curious and resilient mathematicians. We want every child to develop secure number sense, strong fluency, clear mathematical reasoning and the confidence to explain and apply their thinking.

As a small school with mixed-age classes, we plan carefully to ensure that every child is taught the full National Curriculum for their year group. Our White Rose mixed-age curriculum provides a clear structure for progression and coverage from Year 1 to Year 6, while Reception follows the NCETM Mastering Number programme as its core number spine. This is strengthened through carefully planned continuous provision so that children also develop understanding of shape, space, measure, pattern and mathematical language.

Maths lessons at Cavendish are structured through our **Cavendish 5**. Teachers begin by activating prior learning through retrieval practice, helping children to revisit key knowledge and make links with new learning. New concepts are taught through explicit modelling, using the **I Do, We Do, You Do** approach so that children see, practise and apply mathematical thinking with increasing independence.

Children are given purposeful opportunities to practise, reason and solve problems. Teachers use high-quality questioning, precise mathematical vocabulary, manipulatives, representations and stem sentences to help pupils understand the structure of mathematics, not just remember procedures. Feedback is used throughout lessons to move learning forward, address misconceptions quickly and ensure that pupils receive the support or challenge they need.

Alongside White Rose, we use **Mastering Number** to strengthen fluency and number sense, and **I See Reasoning** to deepen mathematical discussion, reasoning and problem solving. Through this approach, children build confidence, make connections and develop the belief that they can succeed in mathematics.

Our aim is for every child to leave Cavendish believing: **"I can do maths."**

Whole-school yearly overview by term

In the Reception row, the weekly sequence is Mastering Number. It should be read as the daily number spine, with the CP/enhancement tables later in this document used to ensure full EYFS mathematical coverage. White Rose is not used explicitly for Reception.

Autumn term

Phase	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12
Reception	Subitise within 3	Counting skills	Composition: made of 1s; 3 & 4	Subitise objects & sounds	Compare sets: more/fewer	Counting; five-ness of 5	Compare by matching; equal number	Whole/part	Composition 3,4,5	Object counting; numerals to 10; verbal count beyond 20	Provision / assessment	Provision / assessment

Y1/2	Place value within 20	Place value within 20	Place value within 20	Add/sub within 20	Add/sub within 20	Add/sub within 20	Place value within 100	Place value within 100	Place value within 100	Place value within 100	Shape	Shape
Y3/4	Place value	Place value	Place value	Place value	Addition & subtraction	Addition & subtraction	Addition & subtraction	Addition & subtraction	Multiplication & division A	Multiplication & division A	Multiplication & division A	Area
Y5/6	Place value	Place value	Place value	Addition & subtraction	Multiplication & division A	Multiplication & division A	Fractions A	Fractions A	Fractions A	Fractions A	Multiplication & division B	Multiplication & division B

Reception is shown through the NCETM Mastering Number weekly sequence, not White Rose. Y1/2, Y3/4 and Y5/6 are shown through the White Rose mixed-age main mathematics blocks. Timings can be adapted to match school term dates, assessment weeks, visits and responsive teaching needs.

Spring term

Phase	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12
Reception	Subitise within 5; numerals to 5	Ordinality; staircase pattern	Focus on 5	6 & 7 as 5 and a bit	Compare & make unequal sets equal	Ordering numbers; staircase	Ordering to 8; less than	Focus on 7	Doubles / equal parts	Odd and even attributes	Provision / assessment	Provision / assessment
Y1/2	Add/sub within 100	Add/sub within 100	Add/sub within 100	Add/sub within 100	Multiplication & division	Multiplication & division	Multiplication & division	Multiplication & division	Length & height	Length & height	Statistics	Consolidation
Y3/4	Multiplication & division B	Multiplication & division B	Multiplication & division B	Length & perimeter	Length & perimeter	Fractions A	Fractions A	Fractions A	Mass & capacity	Mass & capacity	Fractions B	Fractions B
Y5/6	Multiplication & division B	Fractions B	Fractions B	Decimals A	Decimals A	Area, perimeter & volume	Area, perimeter & volume	Decimals B	Decimals B	Decimals B	Fractions, decimals & percentages	Fractions, decimals & percentages

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Summer term

Phase	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12
Reception	Counting larger sets & unseen things	Subitising to 6	Composition: 5 and a bit	Composition of 10	Comparison linked to ordinality; track games	Subitise to 5; introduce rekenrek	Review: bonds to 5	Review: composition to 10	Review: comparison	Review: number patterns	Review: counting	Assessment / transition
Y1/2	Money	Money	Fractions	Fractions	Fractions	Time	Time	Time	Mass, capacity & temperature	Mass, capacity & temperature	Position & direction	Consolidation
Y3/4	Time	Time	Decimals	Decimals	Decimals	Money	Money	Shape	Shape	Position & direction	Statistics	Statistics
Y5/6	Ratio	Algebra	Algebra	Shape	Shape	Shape	Position & direction	Position & direction	Statistics	Statistics	Converting units	Converting units

Reception is shown through the NCETM Mastering Number weekly sequence, not White Rose. Y1/2, Y3/4 and Y5/6 are shown through the White Rose mixed-age main mathematics blocks. Timings can be adapted to match school term dates, assessment weeks, visits and responsive teaching needs.

Mastering Number fluency spine: Reception to Year 5

Mastering Number sits alongside the main White Rose mathematics lesson. It should be taught as a short, regular fluency session to build automaticity, confidence and flexible number sense. In mixed-age classes, this may be taught as separate year-group fluency inputs, targeted small-group sessions or carefully planned retrieval practice.

Year group	Role in the long-term plan
Reception	Daily NCETM Mastering Number is the core number spine. It secures subitising, counting, comparison, composition, early number patterns and automaticity to 5/10. Shape, space, measure and broader pattern are not treated as White Rose blocks; they are planned through continuous provision and adult-led enhancements.
Year 1	Daily NCETM Mastering Number consolidates the ELGs, deepens composition within 10 and 20, and connects number stories to early addition and subtraction.
Year 2	Daily NCETM Mastering Number consolidates bonds within 10 and 20, comparison, equations/inequalities, doubles/near doubles and calculation across the 10-boundary.
Year 3	A Cavendish Mastering Number bridge is included to secure fluency in key additive and multiplicative facts before the formal NCETM KS2 Y4/Y5 programme.
Year 4	NCETM KS2 Mastering Number secures core multiplication facts, multiplicative contexts, commutativity, unitising, distributive thinking and readiness for the MTC.
Year 5	NCETM KS2 Mastering Number deepens multiplication and division flexibility, scaling, ratio-table thinking, divisibility, remainders, fractions as division and multiplicative composition.

Mastering Number: termly coverage by year group

Year group	Autumn term	Spring term	Summer term
Reception	Subitising within 3/5, counting accuracy, composition within 5, comparison and whole/part language.	Subitising and counting beyond 5, staircase pattern, one more/less, composition of 5, 6, 7, doubles and odd/even foundations.	Counting larger sets/actions/sounds, composition of 10, comparison linked to ordinality, track games, bonds to 5 and review/assessment.
Year 1	Consolidate ELGs; subitise within 5; composition of 5, 6, 7, 8, 9 and 10; compare within 10; 1 more/1 less; odd/even and doubles.	Composition of 7 and 9; odd/even structures; systematic partitioning within 10; part-part-whole language; doubling/halving; 2 more/2 less; addition and subtraction stories.	Composition of 11-19 as 10 and a bit; position on number line; compare within 20; expressions/equations for addition and subtraction structures; retrieval of composition facts.
Year 2	Composition of 6-10 and 11-19; compare within 10/20; equals and inequality symbols; missing addends; odd/even structures; position within 20.	Double 6-9; composition of 20; bonds of 20; add/subtract within 20; near doubles; add three numbers; bridge through 10 for addition and subtraction.	Multiples of 10 and position within 100; subtract across the 10-boundary; composition of 20; reason with equations/inequalities; consolidate doubles, near doubles and bonds within/across 10.
Year 3	Secure additive facts that bridge 10; count in 2s, 5s and 10s; use arrays and equal groups to rehearse multiplication as repeated equal groups.	Develop 3, 4 and 8 multiplication facts through grouping, arrays, skip counting and known facts; connect multiplication and division facts.	Consolidate 2, 3, 4, 5, 8 and 10 facts; apply commutativity; solve missing-factor problems; prepare for Year 4 core multiplication fact table.
Year 4	Become familiar with the core multiplication facts table; practise smaller factor first; unitise many as 1; use arrays, doubling, factors 2/4/5/10, square facts and distributive property for x9, x11 and x12.	Going for Gold introduced; retrieve new and previously learned facts; introduce two new facts each week; continue to strengthen automatic recall and flexibility.	Continue retrieval practice in readiness for the MTC; apply known multiplication facts to missing factor problems and connect to division equations.
Year 5	Practise square-number facts and facts where 1 or 10 is a factor; recap factor 2; connect multiplication and division; find unit fractions	Use divisibility rules; sort and classify improper fractions for whole-number quotients; use multiplication/addition equations or	Apply scaling by 10, 100, 1/10 and 1/100 to known facts; understand product change when a factor increases/decreases by 1; explore multiplicative composition.

	of numbers; connect scaling by 1/10 and 1/100 to division by 10/100; use ratio tables.	division with remainders; explore constant functional relationships; multiply whole numbers by 1 and 10.	
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Mastering Number: weekly/sequence checkpoints

The weekly overview is included where uploaded for Year 1 and Year 2. The Year 4 and Year 5 uploaded files are spine-plan diagrams, so these are summarised by yearly sequence rather than week number.

Year	Sequence point	Coverage focus
Y1	Autumn 1	W1 composition/subitising and composition of 5; W2-W3 composition of 6-9 as 5 and a bit; W4 comparison; W5 staircase, 1 more/less; W6 doubles/even numbers.
Y1	Autumn 2	W7 odd/even; W8 composition of 6; W9 composition of 8; W10 composition of 10; W11 ordinality, number tracks and number lines.
Y1	Spring	W12 composition of 7; W13 composition of 9; W14 odd/even shape; W15-W17 part-part-whole and systematic partitioning; W18-W21 1 more/less, 2 more/less and subtraction structures.
Y1	Summer	W22-W23 composition/position of 11-15; W24-W25 addition equations; W26 recall composition 6-9; W27 composition 11-19; W28-W31 subtraction and composition retrieval.
Y2	Autumn	W1 composition 6-9 as 5 and a bit; W2 compare and use $<$ $>$ $=$; W3 odd/even parts; W4 composition of 6; W5 composition of 8; W6 composition of 10; W7-W10 odd/composition 7,9,11-19; W11 compare within 20.
Y2	Spring	W12 doubles to 10; W13 composition of 20; W14 add/sub within 20 inside boundary; W15-W16 near doubles; W17 add three numbers; W18-W21 bridge through 10 and missing addends.
Y2	Summer	W22 multiples of 10 and position within 100; W23-W25 subtraction strategies; W26 composition of 20; W27 equations/inequalities; W28-W31 doubles, adjacent numbers, bonds within/across 10 and assessment.
Y4	Year overview	Autumn develops multiplicative structures and core facts; Spring introduces Going for Gold and systematic retrieval; Summer continues retrieval for the MTC and connects multiplication to division/missing factors.
Y5	Year overview	Autumn secures and connects multiplication/division facts and scaling; Spring extends to divisibility, remainders and functional relationships; Summer applies scaling and explores product change and multiplicative composition.

Year 3: Ready-to-Progress fluency bridge

There is no separate uploaded NCETM Mastering Number Year 3 plan. This bridge therefore uses the DfE/NCETM Ready-to-Progress criteria as a daily fluency spine to secure Year 3 essentials before the Year 4 and Year 5 KS2 Mastering Number programme. It should sit alongside the White Rose Y3/4 main curriculum and be revisited through retrieval practice.

RTP criterion	Key area to secure	Cavendish fluency / retrieval opportunity
3NPV-1	Know that 10 tens are equivalent to 1 hundred and use this to identify how many tens are in three-digit multiples of 10.	Daily unitising prompts with ten-sticks/place-value counters; count tens within 100, 200, 300; connect to measures and money.
3NPV-2	Recognise the place value of each digit in three-digit numbers and compose/decompose using standard and non-standard partitioning.	Place-value retrieval: build, say, partition and recompose numbers; use stem sentences and non-standard partitioning such as $253 = 25 \text{ tens and } 3 \text{ ones}$.

3NPV-3	Reason about the position of three-digit numbers in the linear number system, including previous/next multiples of 100 and 10.	Number-line estimation routines; place numbers on 0-1000 lines; identify nearest 10/100 and explain relative size.
3NPV-4	Divide 100 into 2, 4, 5 and 10 equal parts and read scales/number lines marked in these parts.	Short scale-reading fluency linked to statistics, measuring and graphs; count in 25s, 20s, 10s and 50s on number lines.
3NF-1	Secure fluency in addition and subtraction facts that bridge 10 through continued practice.	Daily retrieval of bridge-through-10 facts; derive related facts across 100; use "I know..., so..." reasoning.
3NF-2	Recall multiplication and corresponding division facts in the 10, 5, 2, 4 and 8 multiplication tables and recognise multiples.	Skip-counting, arrays, ratio-table style rehearsal, missing-factor questions and division fact families for 2, 5, 10, 4 and 8.
3NF-3	Apply place-value knowledge to known additive and multiplicative facts by scaling facts by 10.	Scale known facts: $3 + 4 = 7$ so $30 + 40 = 70$; $3 \times 4 = 12$ so $3 \times 40 = 120$; connect to place-value counters.
3AS-1	Calculate complements to 100.	Daily "make 100" practice using number bonds and bar models; link to money/change and measure contexts.
3AS-2	Add and subtract up to three-digit numbers using columnar methods.	Fluency warm-ups on column value, regrouping language and checking by inverse; keep practical place-value equipment available.
3AS-3	Manipulate the additive relationship, including inverse, part-part-whole and commutativity for addition.	Missing-number equations, bar models and "same whole/different parts" reasoning; explain why subtraction is not commutative.
3MD-1	Apply known multiplication and division facts to contextual problems with different structures, including quotitive and partitive division.	Weekly contextual problem rehearsal: equal groups, sharing/grouping, missing factors, arrays and "which equation matches?" reasoning.
3F-1 to 3F-4	Interpret/write proper fractions, find unit fractions of quantities, reason about fractions within 1, and add/subtract same-denominator fractions within 1.	Use fraction strips, number lines and equal sharing; connect unit fractions of quantities to division facts and multiplication table fluency.
3G-1 and 3G-2	Recognise right angles and draw polygons from marked points, identifying parallel and perpendicular sides.	Quick geometry retrieval during shape units: right-angle hunts, turn language, geoboards, dotty paper and vocabulary rehearsals.

Reception: Mastering Number only, with planned CP to secure full EYFS coverage

Reception does not use White Rose. The long-term Reception sequence is therefore built from NCETM Mastering Number. Because Mastering Number is a number programme, the wider mathematics needed for the ELGs and a strong EYFS curriculum must be planned deliberately through continuous provision, routines, adult interactions and short enhancements.

Term	Mastering Number focus	ELG coverage secured	Continuous provision needed for gaps
Autumn	Subitising within 3; counting skills; composition made of 1s; composition of 3 and 4; subitising objects and sounds; comparison using more/fewer; five-ness of 5; equal number; whole/part; composition of 3, 4 and 5; object counting; numerals to 10; verbal counting beyond 20.	Number sense, subitising, counting accuracy, comparison language, early composition and cardinality are strongly supported.	Add CP for repeating pattern, 2D/3D shape naming and construction, positional language, comparative measures and mathematical vocabulary in play.
Spring	Subitising within 5; numeral matching; staircase pattern; one more than the previous number; focus on 5; 6 and 7 as 5 and a bit; equal/unequal groups; ordering to 8; less than; focus on 7; doubles/equal parts; odd/even number shapes.	Number and Numerical Patterns are deepened, especially composition, ordinality, doubles, odd/even and comparison.	Add CP for shape composition, spatial visualisation, indirect/non-standard measures, more complex pattern units, route/position language and problem-solving talk.
Summer	Counting larger sets/actions/sounds; subitising to 6; composition as 5 and a bit; composition of 10; comparison linked to ordinality; track games; rekenrek; automatic recall of bonds to 5; composition to 10; comparison; number patterns; counting review.	ELG Number and Numerical Patterns are consolidated and evidenced through recall, track games, comparison, composition and counting.	Add CP for time language, sequencing, equal sharing in real contexts, measures investigations, shape/space challenges and transition-ready recording/mark-making.

Reception: CP plan for aspects not fully covered by Mastering Number

Aspect needing deliberate planning	Why it is a gap if only Mastering Number is used	How it will be built into continuous provision
Pattern beyond number patterns	Mastering Number includes number patterns, doubles, odds/evens and comparison, but does not fully cover repeating pattern progression.	Pattern station with AB/AAB/ABC/AABC patterns; copy, continue, correct and create patterns with beads, pegs, natural materials, movement and sound; adults ask children to name the repeating unit.
Shape - 2D and 3D	Mastering Number uses structured representations but does not explicitly teach the full EYFS shape pathway.	Block area, shape hunts, pattern blocks, tangrams, junk modelling, 3D solid sorting, build-and-describe challenges, and daily language such as sides, corners, faces, curved, flat, roll, stack and slide.
Spatial reasoning and position	Track games support ordinality, but position, route, rotation, flip/turn and visualisation need planned CP.	Obstacle courses, small-world maps, Bee-Bot style routes, jigsaws, construction plans, positional language prompts and "what will it look like if we turn/flip it?" adult questioning.
Measures - length, height, mass, capacity, time	Mastering Number strengthens counting/comparison but does not fully cover the EYFS measures pathway.	Water and sand capacity, balance scales, compare and order towers/plants/ribbons, cooking/recipes, timers, daily timetable sequencing, calendar routines and vocabulary such as longer, shorter, heavier, lighter, full, empty, before, after.
Mathematical recording and explanation	Mastering Number is highly oral and practical; Reception evidence also needs mark-making and explanation in provision.	Clipboards, tally marks, number labels, child-made maps, photo annotations, floor-book evidence, "show me/prove it" prompts and adults modelling full mathematical sentences.

Reception: Mastering Number mapped to the ELGs

The daily Mastering Number sequence gives strong coverage of the ELG Number and Numerical Patterns statements. The table below identifies where provision needs to deliberately strengthen, revisit or evidence elements that are not a full daily Mastering Number focus every week.

ELG statement / strand	Coverage through Mastering Number	Planned provision / enhancement	Optional White Rose signpost
Number: deep understanding of numbers to 10	Strongly covered through composition within 5, 6 and 7 as 5-and-a-bit, composition of 10 and comparison work.	Daily counting collections to 10, ten-frame/rekenrek provocations, number stories in snack/register/routines, part-whole models with loose parts.	Not required as a main unit. Optional CP ideas may be lifted from WR: Alive in 5; Growing 6, 7, 8; Building 9 and 10.
Number: subitise up to 5	Directly covered through subitising within 3 and 5, structured/unstructured arrangements, fingers, die patterns, sounds and later rekenrek.	Keep subitising images in continuous provision; quick flash-and-say boards; dot plates; natural subitising outdoors with leaves, stones, cones and shells.	Not required as a main unit. Optional WR CP links: It is Me 1,2,3; 1,2,3,4,5.
Number: automatically recall number bonds to 5 and some bonds to 10	Bonds to 5 are explicit in Summer 2 review; composition of 10 is introduced in Summer 1, but bonds to 10 need extra retrieval and evidence.	Add daily 3-minute recall routines in Summer; part-whole trays; missing-part games; how-many-hidden pots; number bond songs; ten-frame story problems.	WR support: Building 9 and 10; Make Connections. Use as optional practice/resource bank, not as the Reception sequence.
Numerical Patterns: verbally count beyond 20	Autumn includes verbal counting beyond 20; Term 2/3 continue counting sequence and track games, but this needs routine evidence.	Embed counting during lining up, calendar, snack, steps, jumps and PE; count on from different starting numbers.	WR support: To 20 and Beyond. Use for extra CP prompts and representations.
Numerical Patterns: compare quantities up to 10	Covered through comparison of sets, matching, equal/unequal sets, less than, more/fewer and comparison linked to ordinality.	Add comparison prompts to all provision: Which has more/fewer/equal? paired towers, voting, snack quantities, water/sand scoops.	WR support: Match, Sort and Compare; Alive in 5; Building 9 and 10.
Numerical Patterns: explore/represent patterns within numbers to 10, including odds, evens, doubles and equal distribution	Covered through doubles, odd/even number shapes, equal/unequal groups and distribution in review; needs practical CP evidence.	Use peg/finger/rekenrek doubles, sharing snack/loose parts into equal groups, odd-one-out investigations, paired socks/gloves, can-everyone-have-the-same problems.	WR support: Sharing and Grouping; Make Connections.

Reception: planned opportunities for missing or broader EYFS mathematics

These areas are not separate ELGs in the same way as Number and Numerical Patterns, but they are essential for a strong Reception mathematics curriculum and preparation for Year 1. They should be visible in continuous provision, adult interactions, floor books and short enhancements. White Rose is referenced here only as an optional resource bank to reduce teacher workload; it does not replace the Cavendish Reception spine of Mastering Number plus planned continuous provision.

Provision strand	Coverage trajectory	Planned opportunities in CP	Optional White Rose signpost
Repeating pattern and sequencing	Autumn 1: notice and recognise AB patterns. Autumn 2: build and extend AB patterns. Spring/Summer: AAB, ABC, AABC and core-unit translation.	Pattern trays with beads, pegs, natural materials; movement/sound patterns; pattern hunt in clothing/tiles; copy, continue, correct and translate patterns.	WR support: Talk about Measure and Pattern; Make Connections.
Sorting, matching and comparing objects	Not a separate Mastering Number focus, but essential early mathematical thinking and useful assessment evidence for reasoning, language and classification.	Sorting baskets, buttons, natural objects, loose parts, snack choices, tidying with labels, same/different prompts and child-created sorting rules.	WR support: Match, Sort and Compare.

2D shape recognition and composition	Autumn: match/name typical shapes and make pictures with single shapes. Spring/Summer: compare attributes, compose/decompose shapes and identify shapes within shapes.	Pattern blocks, tangrams, shape pictures, large outdoor shape hunts, same-but-different sorting, draw around/overlay shapes, make pictures from combined shapes.	WR support: Circles and Triangles; Shapes with 4 Sides; Manipulate, Compose and Decompose.
3D shape and construction	Autumn: recognise cube/sphere and stack congruent blocks. Spring/Summer: name more solids, count faces, build bridges/enclosures/corners with increasing anticipation.	Block area challenges, junk modelling, build a bridge for a toy, sort solids by face/roll/stack properties, photograph and explain structures.	WR support: Explore 3-D Shapes.
Spatial visualisation and positional language	Autumn: slide/turn/flip physically. Spring: begin to visualise flips/turns. Summer: diagonal movement and mental prediction.	Puzzles, obstacle courses, Bee-Bot style movement, small world maps, put it behind/beside/under, rotate/flip shapes to fit outlines.	WR support: Circles and Triangles - Describe Position; Visualise, Build and Map.
Measures: length, height, mass, capacity and size	Autumn: recognise and compare attributes. Spring: indirect comparison and non-standard units. Summer: time sequencing and duration.	Measure plants/children/towers; water/sand capacity; balance scales; longer/shorter/heavier/lighter challenges; recipes; daily timetable and timer challenges.	WR support: Talk about Measure and Pattern; Mass and Capacity; Length, Height and Time.
Time and daily routines	Mastering Number includes sequencing/counting routines, but time language and duration need planned CP and adult modelling.	Visual timetable, now/next/later, morning/afternoon, timer challenges, day/night sorting, sequence familiar events and compare short/long durations.	WR support: Length, Height and Time; Shapes with 4 Sides - My Day and Night.
Mathematical language and recording	Required across all strands so children can explain, compare and record mathematical thinking.	Adult modelling of full sentences; vocabulary cards; photo annotations; child mark-making/recording; floor books; prove-it prompts during provision.	No single WR unit: apply vocabulary/recording prompts across all optional support units.

Coverage check across the school

Phase	Coverage summary
Reception	Number, subitising, counting, comparison and composition are planned through NCETM Mastering Number only. White Rose is not used as the Reception scheme. ELG gaps and broader EYFS mathematics - pattern, shape, spatial reasoning, sorting, time and measures - are planned through continuous provision, adult-led enhancements, routines and observation evidence. Relevant White Rose Reception units are referenced only as optional workload-saving CP/resource signposts.
Y1/2	Place value, addition and subtraction, multiplication and division, fractions, money, length/height, mass/capacity/temperature, time, shape, position/direction and statistics are all included.
Y3/4	Place value, addition/subtraction, multiplication/division, fractions, decimals, time, money, mass/capacity, length/perimeter, area, shape, position/direction and statistics are all included.
Y5/6	Place value, four operations, fractions, decimals, percentages, ratio, algebra, area/perimeter/volume, shape, position/direction, statistics and converting units are all included.

Implementation expectations

Element	Expectation
Mixed-age teaching	Teach the shared concept together where possible, with year-group expectation, representations and depth carefully differentiated.
Small steps	Use Mastering Number small-step weekly sequence in Reception for number. For Reception gap areas, teachers may use the named White Rose Reception units as optional CP/resource signposts. Use White Rose small steps to sequence the main Y1-Y6 curriculum blocks. Keep additional recap/retrieval for pupils who need to secure prior knowledge before moving on.
Mastering Number	Reception uses daily Mastering Number as the core Reception maths spine for number. Y1, Y2, Y4 and Y5 use the NCETM Mastering Number materials alongside White Rose. Y3 uses a planned Cavendish fluency bridge to secure readiness for the KS2 programme.
Assessment	Use live marking, questioning, end-of-block checks, PUMA school assessment points as appropriate, and pupil book/provision evidence in Reception.
Responsive planning	The week map is long-term coverage. Teachers may flex timings in response to assessment, school events, consolidation needs and mixed-age cohort context.

Reception termly provision prompts

Term	Provision emphasis
Autumn	Secure counting routines, subitising to 3/4/5, comparison language, whole/part language and early pattern noticing. Add shape hunts, block play, AB patterns, measures vocabulary and simple positional language. Optional WR support: Match, Sort and Compare; Talk about Measure and Pattern; Circles and Triangles; Shapes with 4 Sides.
Spring	Deepen 5-and-a-bit, staircase pattern, ordering to 8, doubles, odd/even foundations and equality. Add standard and non-standard measuring, 2D/3D composition, more complex pattern units and spatial language. Optional WR support: Mass and Capacity; Length, Height and Time; Explore 3-D Shapes.
Summer	Consolidate composition to 10, bonds to 5, comparison, number patterns, track games and counting accuracy. Add transition-ready recording, problem-solving stories, time language, equal sharing, rekenrek and ten-frame recall routines. Optional WR support: To 20 and Beyond; Manipulate, Compose and Decompose; Sharing and Grouping; Visualise, Build and Map; Make Connections.

Notes for subject leadership

- Check that Reception medium-term planning follows Mastering Number for number. White Rose Reception units should be treated only as optional support for CP/gap areas, not as the Reception scheme. For Y1-Y6, check medium-term plans retain the White Rose block order unless there is a clear school reason to adjust timing.
- Monitor that Reception evidence captures Number and Numerical Patterns as well as shape, space, measures and pattern provision.
- Look for coherence in representations: fingers, five/ten frames, rekenrek, bead strings, part-whole models, number lines and practical measures.
- Use pupil voice and book/provision evidence to check that children can explain the mathematics, not only complete tasks.
- In mixed-age classes, check both year-group expectations are visible in questioning, independent tasks and assessment evidence.

Source references

Sources used: NCETM / Maths Hubs Mastering Number Reception Overview and Reception Overview by Week; Year 1 and Year 2 overview and weekly overview; Year 4 and Year 5 Key Stage 2 spine-plan diagrams; White Rose Education mixed-age schemes of learning for Y1/2, Y3/4 and Y5/6; White Rose Reception unit titles used only as optional CP/resource signposts for ELG gaps and broader EYFS mathematics; uploaded EYFS curriculum and Mastering Number Overview workbook; DfE/NCETM Ready-to-Progress criteria for the Year 3 fluency bridge.

I See Reasoning links to support reasoning and depth

These links are intended to reduce teacher workload by signposting the relevant I See Reasoning section for each year group/topic. Use them after the main concept has been modelled, for guided reasoning, same-day deepening, small-group talk, stem-sentence practice, challenge, or pre/post unit retrieval. Links point to the uploaded resource file and the relevant contents/section page where possible; they will work best if the I See Reasoning files are kept in the same folder as this planning document.

Resource index

Year/group	Resource link	How to use
Y1/2	I See Reasoning KS1 - contents	Best fit for the mixed Y1/2 main blocks and Mastering Number reasoning prompts. Includes number/place value, addition, subtraction, doubling/halving, multiplication/division, fractions, measurement, money, time, geometry and statistics.
Y3	I See Reasoning Y3 - contents	Use for specific Year 3 expectations and the Year 3 RTP fluency bridge.
Y3/4	I See Reasoning LKS2 - contents	Useful when planning a shared lower-KS2 mixed-age reasoning task across Y3/4.
Y4	I See Reasoning Y4 - contents ; Y4 contents continued	Use for Year 4-specific reasoning and MTC-related multiplicative depth.
Y5	I See Reasoning Y5 - contents ; Y5 contents continued	Use for Year 5-specific reasoning alongside White Rose and Mastering Number.
Y5/6	I See Reasoning UKS2 - contents	Useful when planning a shared upper-KS2 mixed-age reasoning task across Y5/6.
Y6	I See Reasoning Y6 - contents	Use for Year 6-specific reasoning, challenge and SATs-depth discussion.

Y1/2: I See Reasoning links by topic

Y1/2 topic	I See Reasoning link	Suggested use
Place value within 20 / 100	KS1: Number and place value	Use for representation, odd-one-out, place value images, number lines and explaining mistakes.
Addition and subtraction within 20 / 100	KS1: Addition ; Subtraction ; Addition and subtraction	Use for reasoning around structures, related facts, missing parts and explaining methods.
Mastering Number: doubles, halves, odd/even, near facts	KS1: Doubling and halving ; Number and place value	Use as short fluency-talk prompts alongside Mastering Number.
Multiplication and division	KS1: Multiplication ; Multiplication and division	Use for arrays, equal groups, repeated addition and inverse connections.
Fractions	KS1: Fractions	Use for part-whole talk, halves, quarters and reasoning with equal parts.
Money	KS1: Measurement - money	Use for coin values, totals, change and problem-solving contexts.
Length, height, mass, capacity and temperature	KS1: Measurement	Use for comparing, estimating, reading scales and explaining units.
Time	KS1: Measurement - time	Use for clock reading, sequencing, duration and time language.
Shape / position and direction	KS1: Geometry ; 2D shape ; 3D shape	Use for properties, sorting, similarities/differences and explaining shape vocabulary.
Statistics	KS1: Statistics	Use for interpreting simple charts and explaining what data shows.

Y3/4: I See Reasoning links by topic

Y3/4 topic	I See Reasoning link	Suggested use
Place value	Y3: Place Value ; Y4: Place Value ; LKS2: Place value	Use Y3/Y4 pages for year-specific expectations; use LKS2 for shared mixed-age prompts.
Negative numbers / rounding / Roman numerals	Y4: Negative Numbers ; Y4: Rounding ; Y4: Roman Numerals ; LKS2: PV extensions	Use where these appear in Y4 or as retrieval/challenge for the Y3/4 class.
Addition and subtraction	Y3: Addition ; Y3: Subtraction ; Y3: Addition and Subtraction ; Y4: Addition/Subtraction ; LKS2: Addition and subtraction	Use for mental/written methods, bar models, missing numbers and strategy comparison.
Multiplication and division A/B	Y3: Multiplication ; Y3: Division ; Y3: Multiplication and Division ; Y4: Multiplication/Division ; LKS2: Multiplication and division	Use alongside Y3 RTP bridge and Y4 Mastering Number; focus on arrays, factors, division contexts and missing factors.
Fractions A/B	Y3: Fractions ; Y4: Fractions ; LKS2: Fractions	Use for unit/non-unit fractions, number lines, equivalence and same-denominator operations.
Decimals	Y4: Decimals ; LKS2: Decimals	Use for tenths/hundredths, place value, money links and explaining misconceptions.
Money	Y3: Money ; Y4: Money ; LKS2: Measures - money	Use for totals, change, mixed-operation contexts and explaining efficient approaches.
Time	Y3: Time ; Y4: Time ; LKS2: Measures - time	Use for reading clocks, duration and 24-hour time reasoning.
Length, perimeter, area, mass and capacity	Y3: Measurement ; Y3: Perimeter ; Y4: Measurement ; Y4: Area and Perimeter ; LKS2: Measures	Use for unit conversion, comparing, scale reading, perimeter/area misconceptions and real contexts.
Shape / position and direction	Y3: Geometry ; Y4: Geometry - Shape ; Y4: Position and Direction ; LKS2: Geometry	Use for angles, properties, coordinates and precise vocabulary.
Statistics	Y3: Statistics ; Y4: Statistics ; LKS2: Statistics	Use for interpreting graphs, explaining data and generating questions.

Y5/6: I See Reasoning links by topic

Y5/6 topic	I See Reasoning link	Suggested use
Place value	Y5: Place Value ; Y6: Place Value ; UKS2: Place value	Use for large numbers, decimals, negative numbers, rounding and explaining representations.
Addition and subtraction	Y5: Addition ; Y5: Subtraction ; Y5: Addition and Subtraction ; Y6: Addition/Subtraction ; UKS2: Addition and subtraction	Use for efficient methods, inverse, multi-step reasoning and checking.
Multiplication and division A/B	Y5: Multiplication ; Y5: Division ; Y5: Multiplication and Division ; Y6: Multiplication/Division ; UKS2: Multiplication/Division	Use with Mastering Number Y5 for scaling, factors, multiples, divisibility, missing factors and product change.
Fractions A/B	Y5: Fractions ; Y5: Fractions operations ; Y6: Fractions ; UKS2: Fractions	Use for equivalence, number lines, comparing, adding/subtracting and multiplying/dividing fractions.
Decimals A/B	Y5: Decimals ; Y6: Decimals ; UKS2: Place value - decimals	Use for decimal place value, multiplying/dividing by powers of 10 and explaining common misconceptions.
Fractions, decimals and percentages	Y5: FDP ; Y6: FDP/Percentages ; UKS2: FDP	Use for equivalence, percentage reasoning and flexible representations.
Ratio and algebra	Y6: Ratio and Proportion ; Y6: Algebra/Sequences ; UKS2: Ratio and proportion ; UKS2: Algebra	Use for proportional reasoning, functional relationships, sequences and generalising.
Area, perimeter, volume and converting units	Y5: Perimeter, Area, Volume ; Y6: Measurement/PAV ; UKS2: Measures ; UKS2: Volume ; UKS2: Area and perimeter	Use for compound shapes, volume, scale, conversion and multi-step measure reasoning.
Shape / angles	Y5: Angle ; Y5: Shape ; Y6: Angle/Shape ; UKS2: Shape/angle	Use for properties, symmetry, angle facts, nets and explaining geometric relationships.
Position and direction	Y5: Position, Direction, Coordinates ; Y6: Position, Direction, Coordinates ; UKS2: Coordinates	Use for coordinates, translation, reflection and explaining transformations.
Statistics	Y5: Statistics ; Y6: Statistics/Averages ; UKS2: Statistics ; UKS2: Average	Use for graph interpretation, timetables, line graphs and averages.

How teachers should use the I See Reasoning signposts

- Choose one reasoning prompt per small step rather than using every page in the section.
- Use prompts for talk first: What do you notice? Which answer? Explain the mistake. Convince me. What is the same and what is different?
- In mixed-age classes, start with a shared visual prompt when appropriate, then vary the numbers, representations or sentence stems by year group.
- Use the resource for same-day deepening, retrieval at the start of a linked block, or guided group intervention where pupils need to articulate a misconception.