

Maths Progression Map (Birth to Five Matters: Range 3 → ELG)

RANGE 3 (Approx. 18–30 months)

Focus: Early exploration through play, noticing, experimenting

Concept	What Children Are Learning	Adult Advice	Classroom Activity Ideas
Comparison	Noticing “more/less”, bigger/smaller	Use simple language constantly	Snack-share (“Who has more grapes?”), compare bucket sizes in sand
Counting	Hearing number words in sequence	Count aloud naturally during routines	Count steps on the stairs, taps as paint drips
Cardinality	Beginning to realise quantities represent “how many”. Might use number words	Emphasise the last number word	“You put three bricks— three is how many.”
Composition	Combining and separating objects unknowingly	Narrate actions	“You put two cars here and one here.”
Spatial Awareness	Exploring space with bodies + objects. Filling and emptying containers	Provide obstacle play, sand, water	Crawling tunnels, treasure baskets with containers. Water and sand play with jugs and containers
Shape	Exploring shapes through touch. Building towers and structures	Use shape names casually	Shape-sorters, chunky blocks, talk about “round”, “pointy”
Pattern	Noticing simple repeats in routines, beginning to predict what might happen in the story or rhyme. Lines up toys	Draw attention to patterns	Spot repeating stripes, tidy toys in colour order, read and sing rhymes and stories
Measures	Children begin comparing sizes, weights, capacities and use simple terms such as big/little and full/empty. Begin to understand routines	Model comparison language, provide varied objects, and follow the child’s lead during play.	Water and sand play, treasure baskets with varied items, stacking towers.

RANGE 4 (Approx. 24–36 months)

Focus: Intentional play, beginning to use language to describe

Concept	What Children Are Learning	Adult Advice	Classroom Activity Ideas
Comparison	More accurate “bigger/smaller”, “more/fewer” “lots of” “the same”	Use real objects	Cup-fill races: which cup is fuller?
Counting	Counting to 5+ with errors	Slow, rhythmic counting,	Jump-counting, counting puppets into a box, singing rhymes
Cardinality	Understanding last number = total. Noticing numerals. To count on fingers	Ask “How many altogether?” Emphasise the last number	“Hand me 4 pom-poms” games, sing finger songs eg five little ducks, 5 little monkeys
Spatial Awareness	Move around objects and explore fitting into spaces. Remembering their way around. Language: in, on, under, next to	Give positional challenges	“Put teddy under the chair.” Obstacle courses
Shape	Makes jigsaws, recognising same shapes, constructs simple models	Highlight properties of shapes used	“This one has 3 sides—a triangle.” Jigsaws of increasing difficulty. Construction toys with matching pieces
Pattern	Copying simple AB patterns with sounds and actions	Claps, stamps, beat of drum, shake of bells	Musical games
Measures	Children use more accurate terms like bigger/smaller, heavier/lighter and explore non-standard measurement. Begin to understand past and present and anticipate times of day	Ask open questions, provide scales and containers, support exploration without correcting too often. Ask questions about family events.	Balance scales, footprint measuring, comparing container capacity.

RANGE 5 (Approx. 3–4 years)**Focus: Purposeful mathematical thinking, explanation, representation**

Concept	What Children Are Learning	Adult Advice	Classroom Activity Ideas
Comparison	Comparing quantities reliably	Challenge reasoning	“How do you know which bowl has more?”
Counting	Stable order to 10+, counting with 1:1, recognises numbers to 10	Provide countable sets	Counting treasure hunts; tally marks
Cardinality	Immediate recall of small sets (subitising 1–3), last number said represents total so far, match numerals to items, making marks to represent number eg tallies	Use dot patterns, dice, use simple counters to help with cognitive load, demonstrate tallies	Quick flash dot cards, counting activities,
Composition	Knowing numbers can be made of other numbers, splitting groups of numbers and knowing that the total is still the same, using number to solve problems, each number is one more than the previous,	Explore combinations physically	Number bonds using egg boxes, sharing activities
Spatial Awareness	Language used in position and direction, matches shapes to holes by rotation	Model orientation vocabulary	Tangrams, jigsaws, block constructions
Shape	Describing shapes by properties, naming basic shapes, chooses shapes for tasks, manipulates shapes to make new shapes, makes enclosures and arches in play	Ask “What do you notice?”	Shape hunts with clipboards, construction play, shape play,
Pattern	Create complex patterns	Encourage child-led patterns	ABBA, ABC patterns with loose parts
Measures	Children measure objects using non-standard units systematically and compare results. Recalls daily life and stories.	Encourage reasoning, introduce tools like timers and rulers playfully, help check accuracy. Encourage language before, after, soon, later	Measuring with cubes, timed challenges, shadow length investigation. Prediction in stories

RANGE 6 (4–5 years)

Focus: Using mathematical ideas to solve problems, explain thinking, generalise

Concept	What Children Are Learning	Adult Advice	Classroom Activity Ideas
Comparison	Comparing numbers to 10+ accurately, estimating	Encourage justification	“Convince me this group is larger.”
Counting	Confident counting beyond 20 and 10 backwards. Ordering numbers to 10	Apply counting in problem-solving	“Count how many chairs we need for snack.”
Cardinality	Rapid subitising to 5–6, counting 10 objects from a larger group, matches numeral to quantity up to 10	Build subitising daily	Domino games, dot pattern challenges, counting games with simple counters
Composition	Understanding number bonds (5 & 10), splitting larger numbers by subitising into smaller groups, 1 more and 1 less, mathematical problems with symbols eg +	Provide manipulatives	Ten-frames, Numicon, bead-strings,
Spatial Awareness	Mapping, routes, positional accuracy	Use small world play	Child draws a map for a bee-bot route
Shape	Using shape vocabulary confidently, composing and decomposing shapes, makes their own models, describing and discussing what they are doing.	Introduce properties and reasoning	“Which shapes stack best and why?” simply talk about shapes within shapes
Pattern	Spotting mistakes, extending sequences	Ask children to spot errors	“I think this pattern is wrong—why?”
Measure	Children begin using standard tools and understand units when comparing length, weight, capacity. Sequencing and ordering events and measuring time with a calendar	Give real-life measurement problems, support reading scales, encourage estimating. How many days until? What happened yesterday?	Cooking with real tools, building measured structures, timing races. Discuss what they have been doing. Discuss events coming up and how long until this.

EARLY LEARNING GOALS (End of Reception Assessment Point)

Number

- Have a deep understanding of number to 10, including the composition of each number.
- Subitise (recognise quantities without counting) up to 5.
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

Numerical Patterns

- Verbally count beyond 20, recognising the pattern of the counting system.
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.