EYFS Maths Overview

Nursery End of Year Expectations

- ◊ Can count objects to at least 5.
- ◊ Understand more/less/same.
- ◊ Recognise & name basic shapes.
- ◊ Use informal measures (big/small, long/short).
- ◊ Begin to talk about patterns & spatial relationships.

Reception End of Year Expectations

- ◊ Achieve a deep understanding of numbers to 10.
- ◊ Secure counting, comparing, & composition skills.
- ◊ Develop automatic recall of number bonds to 5 & some to 10.
- ◊ Explore shape, space, & measure through reasoning & talk.

Six Key Areas of Early Mathematics Learning:

Cardinality & Counting	**Comparison**	**Composition**
Understanding that the cardinal value of a number refers to the quantity, or 'how many ness' of things it represents	Understanding that comparing numbers involves knowing which numbers are worth more or less than each other	Understanding that one number can be made up from (composed from) two or more smaller numbers
Pattern	**Shape & Space**	**Measures**
Looking for & finding patterns helps children notice & understand mathematical relationships	Understanding what happens when shapes move, or combine with other shapes, helps develop wider mathematical thinking	Comparing different aspects such as length, weight & volume, as a preliminary to using units to compare later

Nursery Maths Overview

Term	**Topics**	**Numicon Objectives**
Autumn 1	Getting to know Numicon & Patterns	◊ Objectives: Handle & explore Numicon shapes freely in continuous provision. Cover baseboards with pegs & shapes without counting. ◊ Numicon Focus: Visual recognition of patterns, ordering shapes by size without naming numbers yet
Autumn 2	Introduction to Early Number	◊ Objectives: Notice that each number shape is a distinct colour & size. Recite number rhymes in order. Begin matching objects to small numbers (1, 2, 3). ◊ Numicon Focus: Naming the 1, 2, & 3 shapes. Introducing the concept of "one more" by adding a 1-shape or peg onto another.
Spring 1	Exploring Quantities	◊ Objectives: Count up to 5 objects reliably using 1:1 correspondence. Introduce the idea of "zero" as an empty space or no shape. ◊ Numicon Focus: Filling 1–5 shapes with pegs. Subitising (instantly recognizing) patterns up to 3 using Numicon plates & dice patterns

Spring 2	Comparing & Ordering	◊ Objectives: Order the Numicon plates from 1 to 5 in a staircase pattern. Use language like more than, fewer, & the same as. ◊ Numicon Focus: Physically overlaying shapes to see which is larger or smaller
Summer 1	Composition of Numbers to 5	◊ Objectives: Discover that larger numbers are made of smaller numbers (e.g., a 4-shape can be covered perfectly by two 2-shapes). ◊ Numicon Focus: Practically breaking apart & rebuilding numbers to 5
Summer 2	Shapes & Early Measures	◊ Objectives: Spot patterns & copy simple repeating structures. Use everyday language for weight (heavy/light) & capacity (full/empty). ◊ Numicon Focus: Building towers with pegs & shapes to compare heights & lengths

Reception Maths Overview

Term	Weeks	Topics	Maths No Problem Objectives	Numicon Objectives
Autumn 1	Week 1 & 2	Number & Pattern	◊ Match objects by colour, size & type ◊ Match identical objects ◊ Begin sorting using simple criteria ◊ Sort objects into groups ◊ Identify sets ◊ Explain sorting rules ◊ Compare groups	◊ Establishing Baseline 1-5: Subitise quantities up to 5. Match numerals to Numicon shapes & object amounts. ◊ Sorting & Attributes: Match shapes by physical traits. Fill baseboards cleanly using spatial rotation.
	Week 4	Shape, Space & Measure ~ Comparing & Ordering	◊ Compare quantities & objects ◊ Order by size & height ◊ Compare length & time using everyday language	
	Weeks 5-7	Number & Pattern	◊ Recognise repeating patterns ◊ Continue AB patterns ◊ Create simple repeating patterns ◊ Spot patterns in the environment ◊ Count objects accurately using one-to-one correspondence ◊ Represent numbers through counting experiences ◊ Begin recognising quantities ◊ Compare quantities to 5 ◊ Count in different arrangements ◊ Recognise representations of 5	
	Week 8	Shape, Space & Measure ~ Time	◊ Understand day & night ◊ Sequence daily events ◊ Name days of the week ◊ Talk about time through routines	

Term	Weeks	Topics	Maths No Problem Objectives	Numicon Objectives
Autumn 2	Weeks 1 & 2	Number & Pattern	◊ Explore numbers 1–5 ◊ Represent numbers in different ways ◊ Begin subitising small quantities ◊ Identify & build numbers to 5 ◊ Explore number bonds within 5 ◊ Compose & decompose numbers ◊	◊ Deepening 1–5 & Intro to 10: Understand composition of numbers to 5 (e.g., 3+2=5). Begin sequencing & identifying shapes up to 10. ◊ Patterning: Notice, copy, & extend ABAB repeating patterns using multi-coloured Numicon pegs.
	Weeks 3 & 4	Shape, Space & Measure ~ 2D Shapes	◊ Recognise & name common 2D shapes ◊ Compare shapes ◊ Identify shapes in the environment ◊ Explore properties of shapes ◊ Create pictures using shapes ◊ Identify triangles, squares, rectangles & circles	
	Weeks 5 & 6	Shape, Space & Measure ~ Positional Language	◊ Use positional language (in, on, under, next to) ◊ Describe movement & location ◊ Explore spatial awareness	
Spring 1	Weeks 1-3	Number & Pattern ~ Counting & Ordering	◊ Understand zero as representing none ◊ Count objects to 10 ◊ Add & subtract zero ◊ Compare quantities including one fewer ◊ Count forwards & backwards ◊ Order numbers to 10 ◊ Understand position in a sequence ◊ Compare quantities ◊ Use five frames & ten frames ◊ Represent numbers in different ways ◊ Understand conservation of number	◊ Numbers 6 to 8: Deep dive into the "sixness of 6", 7, & 8. Find "one more" & "one less" using the staircase model. ◊ Spatial Awareness: Use positional language (under, next to, behind) to guide shape placement.
	Weeks 4-5	Number & Pattern ~ Addition	◊ Combine groups to find totals ◊ Add within 10 ◊ Compare quantities when adding ◊ Add by counting on	
	Week 6	Number & Pattern ~ Comparing & Ordering	◊ Compare quantities in different contexts ◊ Use language: more, fewer, equal ◊ Develop conceptual subitising ◊ Order numbers using ten frames	

Term	Weeks	Topics	Maths No Problem Objectives	Numicon Objectives
Spring 2	Weeks 1 & 2	Number & Pattern ~ Counting	◊ Share objects into groups ◊ Identify equal groups ◊ Explore number bonds through stories & practical contexts ◊ Explore number bonds to 7, 8, 9 & 10 ◊ Partition numbers into parts ◊ Represent numbers in multiple ways	◊ Numbers 9 & 10: Complete the 1–10 sequence. Explore number bonds to 10 by pairing two Numicon shapes together. ◊ 2D & 3D Geometry: Compare shapes. Combine 2D shapes to create new ones (e.g., two squares make a rectangle).
	Week 3	Number & Pattern ~ Patterns	◊ Recognise & describe patterns ◊ Extend repeating patterns ◊ Identify mistakes in patterns ◊ Explore abstract patterns	
	Week 4	Shape, Space & Measure ~ Length & Height	◊ Compare length & height ◊ Use non-standard units ◊ Estimate & measure ◊ Use comparative language (longer/shorter/taller)	
	Week 5	Shape, Space & Measure ~ Capacity	◊ Explore empty & full ◊ Compare capacity ◊ Use language: full, half-full, nearly full ◊ Estimate capacity ◊	
	Week 6 & 6	Shape, Space & Measure ~ 2D & 3D Shapes	◊ Recognise & describe 2D shapes ◊ Explore shape properties ◊ Create pictures using shapes ◊ Recognise 3D shapes ◊ Explore solid shapes in real life ◊ Build & construct using 3D shapes	

Term	Weeks	Topics	Maths No Problem Objectives	Numicon Objectives
Summer 1	Weeks 1-3	Number & Pattern ~ Counting	◊ Count on from a given number ◊ Add using counting strategies ◊ Represent addition on a number frame ◊ Find hidden amounts ◊ Count forwards & backwards to 10 ◊ Find one more & one less ◊ Solve missing number problems ◊ Develop number sequencing ◊ Count to 20 forwards & backwards ◊ Recognise teen numbers ◊ Represent numbers 11–20 in different ways ◊ Order numbers to 20	◊ Early Calculation: Concrete addition & subtraction by combining plates or overlaying them to find the difference. ◊ Measures: Compare weight & capacity using balance scales & Numicon weights.

	Weeks 4-6	Number & Pattern ~ Doubling, Halving & Sharing, Odd & Even	◊ Explore doubles using practical resources ◊ Recognise doubles patterns ◊ Use doubling to support number understanding ◊ Share objects equally ◊ Understand halving as splitting into two equal parts ◊ Link doubling & halving ◊ Explore odd & even numbers ◊ Sort numbers into groups ◊ Recognise number patterns	
	Week 7	Shape, Space & Measure ~ Mass	◊ Compare heavy & light objects ◊ Measure using non-standard units ◊ Use comparative language	

Term	Weeks	Topics	Maths No Problem Objectives	Numicon Objectives
Summer 2	Week 1	Shape, Space & Measure ~ Volume & Capacity	◊ Compare capacity ◊ Use vocabulary: full, empty, half-full ◊ Investigate volume through practical exploration	◊ Beyond 10 & Numerical Patterns: Count past 20. Explore Odds & Evens using the structural symmetry of the plates. Introduce doubling & sharing. ◊ Time & Deepening: Practice recall of number bonds to 5 & 10. Sequences of events using time vocabulary.
	Week 2	Shape, Space & Measure ~ Money	◊ Recognise coins ◊ Combine coins in play contexts ◊ Share amounts equally ◊ Explore giving change through role play	
	Week 3	Number & Pattern	◊ Collect information ◊ Create pictograms & tallies ◊ Interpret simple data	
	Weeks 4-7	Consolidation	◊ Apply number knowledge across contexts ◊ Combine shape, measure & number skills ◊ Deepen mathematical reasoning ◊ Solve practical addition & subtraction problems ◊ Create mathematical stories ◊ Apply learning independently	