Mathematics in Nursery

	Autumn	Spring	Summer
Number	• Compare small sets of objects through practical play. • Hear and begin to understand the language of “more than”. • Match pairs of identical objects, noticing what is the same. • Watch and join in as adults count small groups of objects. • Compare sets of objects using “more than” and begin to understand “fewer than”. • Count objects up to 5, touching each object as we say each number (1:1 correspondence). • Begin to group and sort objects into sets of identical items. • Join in with counting during play and everyday routines. • Count sets of objects to 5 and begin to say how many there are altogether (cardinal principle). • Compare groups independently using “more” and beginning to use “fewer”. • Sort objects by a simple feature such as colour or type. • Use counting and mathematical language independently during play and routines.	• Subitise quantities to 3 using real objects, images and fingers. • Show sets on fingers up to 5. • Solve simple everyday number problems within 5 (e.g., “We need 3 cups, we only have 2”). • Continue to count small sets with 1:1 correspondence and begin to recognise familiar patterns to 5. • Create sets using positive and negative examples (e.g., “these are triangles, these are not”). • Use everyday language to compare size (big, small, medium). • Use number language confidently during play and routines.	• Link numerals to sets within 1–3, progressing to 1–5. • Predict changes in stories and rhymes by counting forwards and backwards within 5. • Use simple marks, symbols or drawings to represent mathematical ideas (e.g., marks for counting, circles for sets). • Continue to solve everyday number problems within 5. • Use number language confidently when talking about past and upcoming events.

Numerical Patterns	• Explore blocks, shapes and loose parts, choosing pieces based on size and shape. • Begin to respond to simple positional language such as “in” and “on”. • Use everyday size language such as “big” and “small” during play and routines. • Use simple words to describe shape and object properties such as “round”, “big” or “flat”. • Respond to and begin to use positional language such as “under”, “next to” and “on”. • Talk about size using language such as “big” and “small” in meaningful contexts. • Use positional language in play, including in construction and outdoor activities. • Talk about size and properties with more confidence (e.g. “big”, “small”, “long”). • Build with increasing purpose, selecting shapes and materials based on their properties.	• Use positional language accurately in small world, construction and outdoor play (in, on, under, next to, behind, in front). • Arrange 2D shapes and describe simple properties (sides, points, round, flat). • Use 3D shapes purposefully in building (cube, cylinder, prism), ascribing meaning based on their properties. • Use language to fill and empty containers (full, empty, pour, tip, fill). • Use language to compare length, height and width (longer, shorter, taller, wider). • Notice and describe simple patterns in resources and the environment (zig-zag, bumpy, waves, lines). • Use mathematical language confidently when exploring the wider locality.	• Use measurement vocabulary to describe everyday objects (heavy/light, tall/short, big/small, full/empty). • Compare lengths by aligning objects and identifying longer, shorter, taller. • Use positional language accurately when describing book illustrations and real-life scenes. • Continue and correct ABAB patterns using objects, actions and natural materials. • Combine 2D and 3D shapes to make new shapes and describe the effects (e.g., “I made a tower with a cylinder on top”). • Compare the area of 2D shapes by placing them on top of each other and identifying bigger and smaller. • Talk about things that have happened and things that will happen using time words (yesterday, today, tomorrow, morning, afternoon, night).
Key Words & Phrases	**Number & Quantity** 1, 2, 3, 4, 5 More, fewer, same, lots, none, count, how many **Sorting & Matching** Different, match, pair **Numerical patterns** big / small, large / little, round, flat, long / short **Position** In, on, under, next to, through	**Number & Quantity** one, two, three, four, five, more, fewer, same, count, how many Shape triangle, square, circle, diamond, star, sides, points, cube, cylinder, prism **Size & Measure** big, small, little, large, medium, longer, shorter, taller, wider **Position** in, on, under, next to, behind, in front	**Number & Quantity** one, two, three, four, five, count, more, fewer, same, how many **Measurement** heavy, light, empty, full, big, little, bigger, smaller, tall, taller, short, shorter **Position** in, on, under, next to, behind, in front, start, end, middle **Shape** names of 2D and 3D shapes (circle, square, triangle, rectangle, cube, cylinder, prism)

		Pattern & Movement zig-zag, bumpy, waves, lines **Capacity** full, empty, tip, pour, fill	**Pattern** ABAB, repeat, same, different **Time** yesterday, today, tomorrow, morning, afternoon, evening, night, old, did, done
How Adults Support Pupils in Maths	• Model key mathematical language throughout the day, particularly words such as “more”, “fewer”, “same”, “big”, “small”, “in”, “on” and “under”, ensuring children hear this language in meaningful contexts rather than isolated teaching, making links to their everyday lives and experiences in our local community. • Build counting into everyday routines (e.g. snack time, tidying up, lining up), encouraging children to count small groups of objects and modelling 1:1 correspondence by carefully touching or moving each object as they count. • Notice and respond to spontaneous mathematical moments in play, particularly those linked to children’s lived experiences (e.g. building houses, shops or transport seen in Wallsend), extending thinking with prompts such as *“Which has more?”*, *“How many altogether?”* or *“Can you find the same?”*. • Support children to compare quantities by modelling language alongside actions, making comparisons visible (e.g. placing groups side by side). • Provide consistent opportunities to match and sort objects within provision, modelling	• Model mathematical language throughout the day, especially positional language, size, shape, and capacity words. • Narrate mathematical thinking during play (e.g., “You chose the cylinder because it rolls”). • Model subitising by saying what you see without counting (“I can see 3 because it looks like a triangle”). • Provide clear positive/negative examples when sorting (“These are triangles… these are not”). • Use high-quality questioning to extend thinking: “How do you know?” “Which is longer?” “What happens if we add one more?” • Support children to use 2D and 3D shape names in meaningful contexts. • Demonstrate filling, pouring and comparing containers using precise language. • Encourage children to notice patterns in the environment and describe them. • Provide repeated opportunities to solve small number problems during routines (snack, tidying, sharing). • Extend positional language outdoors and in the wider locality (e.g., “behind the gate”, “next to the wall”). • Observe children closely to identify misconceptions and plan next steps.	• Model linking numerals to sets during routines (snack, tidy-up, register). • Narrate mathematical thinking when comparing lengths, heights and weights. • Demonstrate accurate alignment when comparing lengths (“Let’s line them up at the bottom”). • Use positional language when reading books (“The cat is behind the tree”). • Model continuing and correcting ABAB patterns using objects and actions. • Encourage children to use marks and symbols to represent counting or quantities. • Support children to combine shapes and describe what they have created. • Use time language naturally throughout the day (“Yesterday we…”, “After lunch we will…”). • Provide high-quality questioning: “What do you think will happen next?” “Which is heavier?” “How do you know this one is bigger?” • Observe children closely to identify misconceptions and plan next steps.

	how to group items and narrating the thinking process (e.g. “These are all the same colour”). • Model and demonstrate how to build with blocks and loose parts, drawing attention to shape and size and supporting children to make purposeful choices (e.g. “You need a bigger block to make it taller”). • Embed positional language through play and movement, particularly in outdoor and large-scale play, using familiar experiences such as obstacle courses, playground equipment or navigating spaces (e.g. *“under the bridge”, “on the step”, “in the tunnel”*) in their immediate and extended school environment. • Use high-quality interactions to extend language, repeating and slightly extending children’s responses (e.g. child says “more”, adult responds “yes, you have more blocks than me”). • Plan an enabling environment that invites mathematical exploration, including accessible resources for counting, sorting, comparing and building across all areas of provision. • Allow time for repetition and deep exploration, revisiting key concepts regularly so children can secure understanding at their own pace. • Observe children closely in play to identify understanding and misconceptions, using		

	this to inform next steps and targeted support. • Explore quantity through sand, water and natural play (e.g. filling, emptying, comparing more/less, full/empty) • Play in role play areas (e.g. home corner, shop) that involve real-life counting and comparison • Use construction, small world and natural materials to explore shape, size and positional language • Take part and build their own obstacle courses and outdoor play that involve positional language (e.g. under, on, through, over) • Engage in repeated opportunities to compare groups and talk about "more" and "fewer" in meaningful, play-based contexts		
Experiences	• Count during everyday routines such as snack time (e.g. cups, fruit pieces, children present) • Sing counting rhymes and songs, joining in with repeated number patterns • Take part in local walks, noticing and counting familiar features such as houses, cars, buses and steps • Engage in Nature Makers sessions, where children explore and sort natural materials (e.g. leaves, sticks, stones), compare quantities, and talk about size, shape and pattern in the natural environment • Build familiar structures from their environment (e.g. homes, roads, shops)	• Daily counting during routines (register, snack, tidying). • Subitising games using natural materials, images and finger patterns. • Shape hunts indoors and outdoors, naming 2D and 3D shapes in real contexts. • Small world and construction play that encourages positional language. • Water and sand play exploring full, empty, pour, tip, fill. • Outdoor exploration of the local area, using positional and size language. • Pattern-making using natural materials (sticks, stones, leaves) and classroom resources. • Building with blocks and loose parts, choosing shapes for purpose.	• Daily numeral–set matching during routines (cups, fruit pieces, children present). • Story and rhyme sessions involving counting forwards and backwards. • Mark-making opportunities for representing quantities (tally marks, circles, dots). • Comparing lengths using ribbons, sticks, blocks and natural materials. • Exploring weight using balance scales and everyday objects. • Describing book illustrations using positional language. • Pattern-making with natural materials, beads, blocks and movement. • Shape-building challenges using 2D and 3D shapes.

	using blocks, loose parts and natural materials • Sort everyday objects and natural materials into groups based on simple features (e.g. size, shape, type) • Match and pair objects (e.g. socks, picture cards, found natural objects)	• Comparing lengths, heights and widths using ribbons, sticks, blocks and everyday objects. • Solving real-life number problems (e.g., "We need 4 cups—how many do we have?"). • Nature Makers sessions exploring shape, pattern, size and capacity in the natural environment. • Opportunities to sort objects using positive/negative examples (e.g., "things that roll / things that don't").	• Area comparison using shape overlays and loose parts. • Outdoor exploration of day/night, shadows and time-related changes. • Talking about past and future events during routines and circle time.
By Summer, **children will be ready for Reception** because they can:	**<u>Number</u>** • Compare small groups using "more" • Count objects up to 5 with support • Begin to say how many are in a group • Match and sort objects • Understand and begin to use simple positional language • Use simple language to talk about size and shape • Subitise to **3** and show sets to **5**. • Solve simple number problems within **5**. • Use number language confidently in play. • Compare size using everyday language. • Link numerals to sets within **5**. • Count forwards and backwards within **5** in stories and rhymes. • Represent mathematical ideas using simple marks or symbols. • Solve everyday number problems confidently. **<u>Numerical Patterns</u>** • Use measurement vocabulary accurately. • Compare lengths and heights using correct language. • Use positional language confidently in books and play. • Continue and correct ABAB patterns. • Describe simple properties of 2D and 3D shapes. • Combine 2D and 3D shapes with purpose. • Compare the area of simple shapes. • Talk about past and future events using everyday time language.		

	• Use positional language accurately in play and outdoors. • Use language for filling/emptying and comparing length/height/width. • Notice and describe simple patterns.