



EYFS Progression Documents – Nursery and Reception

Maths

Long Row Primary and Nursery School
Inspire, Respect, Belong

Nursery	The children will learn to ...	The adults will support children by ...
Autumn Term	Recognise numbers of significance e.g. their age or house number. Begin to say some numbers in order. Begin to compare and recognise changes in numbers of things, using words like more, lots or same. Begin to understand cardinality e.g. takes or gives 2 or 3 items from a group. Subitise 1 and 2. Fits objects into spaces. Talk about and identify the patterns around them; for example, stripes on clothes, designs on rugs and in books. Use informal language like ‘pointy’, ‘spotty’, ‘blobs’ etc.	Counting in everyday situations and activities. Singing number songs and rhymes. Playing games and completing puzzles. Experimenting with sand, water, dough & other malleable resources to fill, pour, measure, empty and transfer resources. Modelling counting on fingers – singing rhymes, showing ages, counting 1-3 and 1-5. Encouraging mark making in play – adding numbers to lists, showing numbers in the environment. Using daily routines as an opportunity to count and emphasise counting.
Spring Term	Show an awareness of and recognise numerals in the environment. Count using their fingers Use mathematical language – more, lots & the same Understand near and far away Notice patterns and join in with action and sound patterns – repeat back to an adult. Begin exploring size through play – length, mass and capacity. Begin exploring shape through play.	As above and... Singing number rhymes and songs and asking questions such as, ‘how many now?’ Providing mark making opportunities with different materials both indoors and outdoors. Having matching activities - numerals to quantities within continuous provision (to 5). Using positional language within routines – make and use obstacle courses Supporting children to build tracks, roads and other structures and discuss position within play. Modelling using the language of shape and measure during play and structured activities.

Summer Term	Compare 2 groups/sets of objects (3-5) Count 1:1 to 5 Begin to recognise some numbers to 10 Subitise to 3 (without counting) Link numerals to amounts (to 5) Understand cardinality and count in order up to 5 Continue developing and using positional language in play Create arches and enclosures in construction and other play Create and develop simple repeating patterns Compare amounts/quantities – more than, fewer than Talk about and compare shapes using a range of vocabulary – sides, corners, straight, curved, flat & round	<i>As above and...</i> Providing sharing activities within play - sharing amounts between toys and friends and encouraging discussion of amounts – more than, fewer than & the same as. Counting forwards and backwards (to 10) within provision and activities. Modelling writing the numeral in play. Demonstrating cardinality when counting e.g. 1, 2, 3 – I have 3 cups/there are 3 cups. Using loose part play to encourage subitising and exploring composition of number. Having fine motor activities to explore pattern – transient art, threading beads, peg boards & natural materials outdoors. Having number stories, number books, pattern and shape books. Offering differing sized blocks, shapes and construction in provision. Five and ten frames in provision for exploration and play.
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Reception	The children will learn to ...	The adults will support children by ...
Autumn Term	Count to 10 (out loud e.g. songs, rhymes and through play). Begin sorting objects and identify a set. Compare amounts. Separate 3, 4 or 5 objects in different ways. Copy and continue simple patterns. Make and talk about simple patterns they have created. Find the longest, shortest, heaviest & lightest within play. Find & represent numbers 1 – 5: say number verbally, match to correct numeral, count objects. Match numerals to correct quantity/cardinal number value (to 5). Subitise 1, 2, 3 and beyond to 5. Begin to understand composition of numbers 1- 5 e.g. 2, 2 & 1. Begin to recognise that the next number in the sequence is the number one more than and the number before is 1 less than. Predict which objects might fit into a space and move and rotate objects to fit. Talk about everyday shapes and use mathematical language to discuss and compare shapes in the environment (2d & 3d). Identify, name and compare circles and triangles. Compose and decompose shapes to recognise a shape can have other shapes within it, just as numbers can! Describe position. Identify and name shapes with 4 sides and combine shapes with 4 sides.	<i>As above and...</i> Counting as part of everyday activities (at least once a day). Having 'Book Talk' – mathematical stories available within play. Providing collections of objects and loose parts for play – to be separated and grouped. Providing a selection of objects to explore and investigate patterns, sorting and grouping. Having numerals within the learning environments and available to enhance activities. Using mathematical language (one more than, one less than) Having dice play and patterns readily available. Emphasising the 1 more & 1 less patterns when singing rhymes and enjoying stories – get children to predict what will come next. Using problem solving opportunities indoors and outdoors for comparing mass, length, capacity and amounts – water, sand, mud and construction/block play. Ordering by size within play - clothes in role play, cups, bowls and so on... Offering subitising opportunities within play and games. Using Numicon to explore numeral and quantity. Using 5 and 10 frames within play. Asking children to use fingers to 'show me' their answers or ideas to problems. White Rose units: Match, sort & compare, Talk about measure & patterns, It's me 1, 2, 3, Circles & Triangles, 1,2,3,4,5 and Shapes with 4 sides.

Spring Term	Introduce zero. Develop conceptual subitising to 5 and beyond. Further develop, through comparison and exploration, capacity and mass. Find a balance. Find & represent numbers 6-10: say number verbally, match to correct numeral, count objects. Match numerals to correct quantity (0 to 10). Explore and understand composition of numbers to 10. Continue 1 more and 1 less. Make pairs – odd & even. Double to 10 – find a double. Double to 10 – make a double. Combine 2 groups to find a total. Follow and give simple instructions/directions. Explore and compare length & height. Talk about time in everyday life – yesterday, tomorrow, morning, afternoon, evening. Bonds to 10 – 2 parts Bonds to 10 – 3 parts Further explore doubling and odd & even Make own models, talking about shapes and objects used: recognise and name 2D shapes, find 2D shapes within 3D shapes and find 3D shapes in the environment. Spot and identify more complex patterns. Copy and continue patterns and find patterns in the environment.	<i>As above and...</i> Using a variety of counting songs to count forwards and backwards (sometimes starting from different numbers). Providing estimation opportunities within play. Using Numicon and Cuisenaire rods to explore numeral and quantity and pattern e.g. staircase, odds and evens, addition (combining groups), doubles & halves... Playing subitising games – dice and dominoes. Discussing daily routines and familiar experiences - modelling correct vocabulary. Providing simple problem-solving opportunities (muddled up number lines, missing numbers, dropping marbles into a tin – how many?) Providing opportunities for model making in large and small ways (including obstacle courses). Using story time discussions to encourage children to ask and answer questions. Having Bee Bot play and exploration opportunities. White Rose units: Alive in 5! Mass and Capacity, Growing 6,7 & 8, Length, height & time, Building 9 & 10 and Explore 3D shapes.
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Summer Term	Count beyond 10. Further compare numbers. Build numbers – 10 to 13 and then 14 to 20. Continue patterns – 10 to 13 and then 14 to 20. Verbally count beyond 20. Verbally count using patterns – twos, tens and fives. Add more – How many did I add? Take away – How many did I take away? Select shapes for a purpose. Rotate shapes, manipulate shapes and explain shape arrangements. Compose shapes. Decompose shapes. Copy 2D shape pictures. Explore, investigate and find 2D shapes within 3D shapes. Share and group – even and odd sharing. Play with and build doubles. Identify units of repeating patterns. Create own pattern rules and explore own pattern rules. Replicate and build scenes and constructions. Visualise from different positions. Describe positions. Give instructions to build. Explore mapping. Represent maps with models. Create own maps and plans from story situations.	<i>As above and...</i> Using number tracks, number lines and 100 squares to show numerical patterns in the number system. Counting beyond 10 in different ways (2s, 5s, 10s). Providing collections to compare (small/large, more/less) and distribute items equally (sharing). Providing staircase patterns in Numicon & Cuisenaire rods to show that the next counting number is the previous number plus one. Providing problem solving for bonds for 10 e.g. 6 are outside the tent, how many are inside? Using 10 frames to explore bonds and identify how many are missing. Using 5 frames for addition and subtraction facts within play. Compose and decompose shapes - look for patterns e.g. square faces in cubes, two triangles making a square or diamond. Making patterns with AB, ABB, ABBC rules – making deliberate mistakes for the children to correct. Building opportunities using workshop resources and construction toys – describe and explain. Using map drawing through play and linked to story work and ‘Understanding the World’ work e.g. exploring where we live and our homes. White Rose units: To 20 & beyond, How many now? Manipulate, compose & decompose, Sharing & grouping, Visualise, build & map and Make connections.
	Statutory ELG: Number Children at the expected level of development will: - 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. Statutory ELG: Numerical Patterns Children at the expected level of development will: - 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.	
	Statutory Educational Programme: Mathematics Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, ‘have a go’, talk to adults and peers about what they notice and not be afraid to make mistakes.	