Maths	Learning experiences - implementation	Key vocabulary & what the children need to know	Development Matters in the EYFS	Links to Year 1 Thresholds/National Curriculum Objectives
Sunbeams (Nursery 2 year old Provision) **2-3 year olds**	Adults support and model the language of number through their interactions with children in the learning environment Singing number songs with props where items are added or taken away (5 currant buns, 5 little ducks etc) Using the language of number in children's play and during snack time. Provide opportunities for children to manipulate and complete inset jigsaws. Using spatial words like 'on top of', 'up', 'down' and 'through' with children in their play.	Numbers within 5 Give me A lot More	Combine objects like stacking blocks and cups. Put objects inside others and take them out again. Take part in finger rhymes with numbers. React to changes of amount in a group of up to three items. Compare amounts, saying 'lots', 'more' or 'same'. Develop counting-like behaviour, such as making sounds, pointing or saying some numbers in sequence. Count in everyday contexts, sometimes skipping numbers - '1-2-3-5. Climb and squeeze themselves into different types of spaces. Build with a range of resources. Complete inset puzzles. Compare sizes, weights etc. using gesture and language -	**Pupils should be taught to:** - count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number - count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens - given a number, identify one more and one less - identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least - read and write numbers from 1 to 20 in numerals and words. **Pupils should be taught to:** - read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs - represent and use number bonds and related subtraction facts within 20 - add and subtract one-digit and two-digit numbers to 20, including zero - solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? – 9. **Pupils should be taught to:** - solve one-step problems involving multiplication and division, by calculating

			‘bigger/little/smaller’, ‘high/low’, ‘tall’, ‘heavy’. Notice patterns and arrange things in patterns.	the answer using concrete objects, pictorial representations and arrays with the support of the teacher. **Pupils should be taught to:** - recognise, find and name a half as one of two equal parts of an object, shape or quantity - recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. **Pupils should be taught to:** - recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles] 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]. **Pupils should be taught to:** - describe position, direction and movement, including whole, half, quarter and three-quarter turns. Pupils should be taught to: compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] mass/weight [for example, heavy/light, heavier than, lighter than] capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] time [for example, quicker, slower, earlier, later] measure and begin to record the following: lengths and heights mass/weight
Sun (Preschool) **3 to 4 year olds**	Adults support and model the language of number through their interactions with children in the learning environment Singing number songs with props where items are added or taken away (5 currant buns, 5 little ducks etc) Modelling different ways to represent numbers; ‘how many fingers?’ Mark making materials in the learning environment to support mathematical mark making; clipboards, pens/pencils Opportunities for sorting, grouping and counting by property Daily adult-initiated counting and problem-solving activities; how many children at group time, counting cups at snack time Adults support and model the language of shape, space and	Numbers within 10 Give me More A lot How many? Altogether Show me In/out/fit Empty/full Now/next/before/later/ soon big/small	Develop fast recognition of up to 3 objects, without having to count them individually (‘subitising’). Recite numbers past 5. Say one number for each item in order: 1,2,3,4,5. Know that the last number reached when counting a small set of objects tells you how many there are in total (‘cardinal principle’). Show ‘finger numbers’ up to 5. Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5 Experiment with their own symbols and marks as well as numerals. Solve real world mathematical problems with numbers up to 5. Compare quantities using language: ‘more than’, ‘fewer than’. Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids)	

	measure through their interactions with children in the learning environment **Continuous provision** Children have access to a wide variety of jigsaw puzzles in indoor learning environment Children have access to a variety of blocks for construction in indoor and outdoor learning environment Sand and water play; developing concepts of capacity Children's developing concept of time supported through visual timeline (today, now, later, soon) Climbing experiences support children's developing understanding of positional language	biggest/smallest bigger than/smaller than round/tall/long/short **Shape names**: square, triangle, rectangle, circle Under/over	using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'. Understand position through words alone – for example, "The bag is under the table," – with no pointing. Describe a familiar route. Discuss routes and locations, using words like 'in front of' and 'behind'. Make comparisons between objects relating to size, length, weight and capacity. Select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc. Combine shapes to make new ones - an arch, a bigger triangle etc. Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc. Extend and create ABAB patterns – stick, leaf, stick, leaf. Notice and	capacity and volume time (hours, minutes, seconds) recognise and know the value of different denominations of coins and notes sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] recognise and use language relating to dates, including days of the week, weeks, months and years tell the time to the hour and half past the hour and draw the hands on a clock face to show these times

			correct an error in a repeating pattern. Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then…'	
Reception **4 to 5 year old**	**In Reception the children receive a daily whole class Maths input using White Rose Maths.** **Autumn:** Wk 1 – 3 Baseline Match and Sort, Compare amounts, compare size, mass and capacity, Exploring pattern Representing 1,2,3, Comparing 1,2&3 Composition of 1,2&3 Circles and triangles Positional Language **Spring:-** Introducing zero, Comparing numbers to 5, Composition of 4 and 5 Compare Mass, Compare Capacity Making pairs,Combining 2 groups Length & Height Time 9 & 10 Comparing numbers to 10 Bonds to 10 3D-shape Pattern (2) Consolidation		**Early Learning Goal** Mathematics **Number ELG** 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. **Numerical Patterns ELG** Children at the expected level of development will:	

	Summer:- Subitising dice patterns 1-6, Building Numbers Beyond 10, Counting Patterns beyond 10 Spatial Reasoning (1), Match, Rotate, Manipulate Adding more, Taking away Spatial Reasoning (2) Compose and Decompose Consolidate and deepen children's understanding through reasoning and problem solving activities. Ordering numbers 1 – 20 biggest to smallest and smallest to biggest in sequence and not in sequence. **Adults support and model the language of shape, space and measure through their interactions with children in the learning environment** **Continuous provision** Children have access to a variety of blocks for construction in indoor and outdoor learning environment Sand and water play; developing concepts of capacity	Now/next/before/later/ soon Yesterday, today, tomorrow, days of the week big/small biggest/smallest bigger than/smaller than long, longer, longest heavy, heavier, heaviest round/tall/long/short **2D shape names**: square, triangle, rectangle, circle **3D shape names:** cube, cylinder, cuboid, sphere	• 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.	

	Children's developing concept of time supported through visual timeline (today, now, later, soon) Climbing experiences support children's developing understanding of positional language Children use sand timers to measure time in meaningful ways e.g. to support turn taking on popular equipment outside! as part of continuous provision	Recognises coins; penny, 2p, 5p, 10p Minute, hour Under/over Behind/next to		