St Edmund's and St Thomas' Primary School EYFS Maths Knowledge and Skills Progression Map.

We realise that talk is at the heart of maths learning and that most of children's understanding comes from talking about number, shapes and measures, and exploring them through everyday play indoors and outdoors.
When we are supporting the children's developing knowledge and understanding of number, shape, space and measures we introduce specific vocabulary and use questions which extend learning and enabling statements which will support children's thinking: e.g. "I wonder how many apples we will need for snack today?" When playing and engaging in focused activities with the children, staff will use planned mathematical vocabulary to develop and deepen the children's knowledge and understanding.

Mathematics		Nursery	Reception use **NCTEM and White Rose Maths scheme**	KS1 Links
Number	Knowledge and Skills	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. •	• Count objects, actions and sounds • Subitise to 5 and extend to 10 • Link numerals to their cardinal value • Accurately count beyond 10 • Compare numbers within 10 using the language of 'more than', 'less than', 'fewer', 'the same as', 'equal to'. • Find one more and one less than a given number within 10 • Explore the composition of numbers to 10 • Recall number bonds to 5 (including subtractions facts) • Recall most number Bonds to 10 Recall doubles to double 5	Count to and across 100, forwards and backwards, beginning with 0 or 1 or from any given number. Begin to recognise place value in numbers beyond 20
	Vocabulary	count, number, numeral, more than, less than, total, altogether	Number, numeral, number sentence, more, less, same, equal, add, plus, total, altogether, take away, subtract, fewer, double, number bond	
	How it is covered	Counting on fingers, Mark making in play and role play, staff use daily routines to emphasise counting. Games to develop fast recognition of up to 3 objects, Recognise numbers to 3 in different pictorial representations, Count accurately to 5 then 10 and touch count objects to 5 then 10 accurately including counting out from a larger group, link numerals to amounts to 5 Recognise other numbers of significance. Singing number rhymes and asking questions such as 'how many now?' Starting to notice numbers in the environment. Numerals matched to quantities in CP (to 5) Use positional language in routines Make and use obstacle courses Outdoor balances to explore weight Model writing numerals and drawing quantities in play Book talk (maths stories and books) Stories, songs, action rhymes, poems, CP enhancements. **Autumn: the numbers 1 and 2 in depth.** **Spring: the numbers 3,4 in depth.** **Summer: the number 0 & 5 in depth.**	**See NCTEM and White Rose Maths planning.** **Autumn:** recognise the pattern of the counting system within 10 Begin to compare quantities using greater than, less than, same with groups **Spring:** compare quantities using greater than, less than, same and equal to using number balances and addition Recognise the pattern of the counting system beyond 10 **Summer:** Odd and Even numbers Doubles Sharing between two and three equal groups. Recognising groups that are not equal	Represent numbers using objects and pictorial representations Represent and use number bonds Read and write numbers from 1 to 20 in numerals (and words)
Numerical Patterns	Knowledge and Skills	Practitioners encourage the children to explore the collections they make (subitise) Count accurately beyond 5 Count back from 3 Compare quantities using language: 'more than', 'fewer than'. •	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	Use the language of: equal to, more than, less than (fewer), most, least
	Vocabulary	more than, less than	pattern, even, odd, less, more, same, equal	
	How it is covered	Daily, say the counting sequence, in a variety of playful contexts, inside and outdoors, forwards and backwards, sometimes going to high numbers. E.g. hide and seek, rocket-launch countdowns. Count things and then repeat the last number. For example: "1, 2, 3 – **3 cars**". Point out the number of things whenever possible; Play the 'how many in my bucket? Game i.e., give the children the bucket with for example the number 4 on and ask children to get 4 things that will fit inside the bucket.	**Autumn:** recognise the pattern of the counting system within 10 Begin to compare quantities using greater than, less than, same with groups **Spring:** compare quantities using greater than, less than, same and equal to using number balances and addition Recognise the pattern of the counting system beyond 10	

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		Encourage children in their own ways of recording e.g. how many balls they managed to throw through the hoop. Provide a number track on the fence for reference. Discuss mathematical ideas throughout the day, inside and outdoors e.g. How many plates will we need for the toy's picnic?" Play games that involve 2,3,4,5 frames to begin to understand full and not full.	**Summer:** Odd and Even numbers Doubles Sharing between two and three equal groups. Recognising groups that are not equal	
Shape, Space, Measure	Knowledge and Skills	Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) 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 correct an error in a repeating pattern. Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...'	• Select, rotate and manipulate shapes in order to develop spatial reasoning skills recognising how several shapes can be combined. • Compose and decompose shapes • Discuss the properties of common 2D shapes – circle, triangle, square, rectangle, pentagon, semi circle • Recognise and name common 3D shapes and begin to discuss their properties – pyramid, sphere, cube, cuboid, cylinder Continue, copy and recreate patterns with different rules (ABAB,ABBA, AABB, ABBC) Compare length, weight and capacity using ley language. Order 4 or more objects by length, weight or capacity	Recognise, find and same a half as one of two equal parts of an object, shape or quantity compare, describe and solve practical problems for double/half Describe position, direction and movement, including whole, half, quarter and three-quarter turns.
	Vocabulary	off, up, next to, in-between , through, behind, around, over, down, under, above, besides, direction, pattern, first, next, last, 2D shapes, circle, triangle, rectangle, square, corners, 3D, longest, shortest, heaviest, lightest, empty, full	Length, long(er/est), short(er/est, weight, heavy(er/est), light(er/est), capacity, full, empty, half full, nearly empty, nearly full pattern, narrow(er/est), wide(er/est), repeating, 2D, flat, corners, sides, straight, curved, 3D, solid, face, edges, Vertices, vertex	
	How it's covered	Encourage children to play freely with blocks, shapes, shape puzzles and shape-sorters. Sensitively support and discuss questions like: "What is the same and what is different?" Encourage, during play, and use the language associated with shape and position e.g. using words like 'sharp corner', 'pointy' or 'curvy'. Talk about shapes as you play with them: Sustained shared thinking, "We need a piece with a straight edge." Explore shapes through play and combine shapes to make new shapes Explore length and compare two objects using key language Starting to use language of shape in play. 2D shapes and their properties. Explore combining shapes to make new shapes and describe Explore repeating patterns capacity – empty and full Weight – heaviest and lightest Using prepositional language and describing a familiar route	**Autumn:** continue and complete repeating patterns **Spring:** capacity, weight, 2D shapes and their properties, **Summer**: doubles facts, subtraction within 10,	