Maths Long Term Plan EYFS

EYFS Maths	
EYFS Statutory Framework 2021	**Key Links**
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.	https://whiterosemaths.com/resources/early-years https://www.topmarks.co.uk/ https://www.ictgames.com/mobilePage/index.html **Recap knowledge:** Number bonds to 5 and some to 10 Subitising Counting past 20 Doubles Odds and evens

Topics		Working towards	Expected progress	Greater depth / extension	Key vocabulary
Autumn 1	**Getting to know the children (3 weeks)**	EYFS team begin to build relationships with children and getting to know them. Allow children to explore maths provision and become familiar with the resources available.			
	Matching & Sorting Making comparisons Number Length/height	•Children to find object that are the same (matching) •Compare quantities up to 5 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity •To begin to use some vocabulary – big, little, small	•Children can find objects that are the same and different. •Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity •To use vocabulary – big, little, large, small, tall, long and short.	•Problem solving/ reasoning –	Same Different More than Less than Equal to Big/ little Tall/ short Long/ short The ___ is the same length as the ___.

	Comparing Patterns.	•To predict what comes next in a two stage pattern.	•Explore and represent patterns. ABAB, ABBA		The ___ is the same length as the ___.
Progression 	**Nursery expectations:** • To practically begin to make comparison of groups, introducing the term more/ less (up to 5) •To sort into one of two groups e.g. colour •To begin to compare two objects by length and height •To replicate a 2 stage pattern. **Year 1 expectations:** • Describe and compare lengths, heights, capacities, and weights using mathematical vocabulary • Measure length, heights, capacities, weights and times using standard and non-standard units • Understand fully-numbered scales, such as on a ruler or measuring jug • Reason about measurements to solve practical problems.				
Cross curricular links / examples	All about me – comparing similarities and differences between us and others. Harvest – vegetable printing – repeated patterns.				
<u>Autumn 2</u>	Number: Representing Composition Comparing Geometry and spatial thinking Measurement - Time	•Have a deep understanding of number to 5, including the composition of each number •Compare quantities up to 5 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; •To begin to recognise some 2D shape and their properties with support - circle, triangle, square. •With support to begin to use positional language - on top, behind •To begin to recognise events that happen in the day time and at night time with support.	•Have a deep understanding of number to 10, including the composition of each number •Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; •To recognise properties of 2D shapes – sides and corners. •To recognise 2D shapes of different sizes and orientations. •To begin to use positional language to describe how items are positioned in relation to another. •To talk about day and night and organise key events in daily routines.	•Problem solving & reasoning.	____ and ____ make 5. ____ and ____ make 10. Less than More than Same as Corners Sides On top, next to, behind, underneath, above, below, in front. Morning Afternoon Night Breakfast Lunch Dinner Bedtime.

			•To use vocabulary to describe when an event happens – day, night, morning, afternoon, today, tomorrow, before, after. •Begin to measure time in simple ways. E.g. counting number of sleeps, using a timer to measure duration.		
Progression 	**Nursery expectations:** •To represent a given number to 5 using a five frame, fingers and number fan •To begin to recognise 2D shapes by name •To select a shape from a group of shapes •To use 2D shapes in pictures and models •To begin to sequence (up to 3) pictures/ events in order. **Year 1 expectations:** •Count up to and beyond 100, forwards and backwards • Count, read and write numbers up to 100 in numerals • Read and write numbers from one to 20 in words • Count in twos, fives and tens up to the tenth multiple • Say one more or one less than a given number up to 100 • Compare numbers using the language: equal to, more than, less than, fewer, most, least • Identify and represent numbers up to 100 in different ways • Use their knowledge of place value to explain concepts of number • Use number and place value skills fluently to solve a variety of problems •Recognise 2D and 3D shapes in real life • Recognise 2D and 3D shapes in different sizes and orientations • Describe turns, including quarter, half and whole turns • Begin to recognise and use the clockwise direction to turn • Describe position including left, right, above and below • Describe movement including forwards and backwards • Sequence familiar events in chronological order • Order the days of the week and months of the year • Tell the time to the hour and half past the hour on an analogue clock • Draw the hands on an analogue clock face to show the hour and half past the hour.				
Cross curricular links / examples	Daily routine – looking at class timetable, recognising what we do in the morning (before lunch), what we do in the afternoon (after lunch) Fairy tales – sequencing – Beginning, middle, end. Christmas - 2D shapes – creating own wrapping paper using shapes/ identifying shapes that are wrapped up. Wooden nativity – describing the picture of the nativity scene (positional language)				
<u>Spring 1</u>	Number: Representing Composition Comparing Making Comparisons Mass	•Have a deep understanding of number to 5, including the composition of each number •Compare quantities up to 5 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; •To recognise the heaviest objects using balancing scales. •To begin to use the vocabulary - heaviest and lightest.	•Have a deep understanding of number to 10, including the composition of each number •Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; •To begin to estimate mass – making direct comparisons by holding, then checking with scales.	•Problem solving & reasoning.	____ and ____ make 5. ____ and ____ make 10. Less than More than Same as The ___ is heavier than the ___. The ___ is lighter than the ___. Full Empty Half full Nearly full Nearly empty Heavy

			•To use vocabulary – heavy, heavier than, heaviest, light, lighter than, lightest		Light Tall Thin Narrow Wide Shallow Odd Even Pair The ___ is the same length as the ___. The ___ is the same length as the ___.
	Capacity	•To identify containers when they are full and empty. Practically exploring concepts using water and jugs.	•To develop a deeper understanding of full and empty to show half full, nearly full, nearly empty. •To use vocabulary – tall, thin, narrow, wide, shallow.		
	Subitising	•Subitise up to 3 in different arrangements.	•Subitise (recognise quantities without counting) up to 5		
	Exploring pairs	•To find a matching pair - objects that are the same.	•Begin to understand a pair is two. •To explore arrange small quantities into pairs (even) and notice that some quantities will have no partner (odd)		
	Number Addition	•Combine two groups within 5 to find the total amount.	•Combine two groups within 10 to find the total amount.		
	Measurement Length and height	•With support to begin to use vocabulary - long & short.	•To use language to describe length and height		
	Time	•With support begin to measure time in simple ways.	•Begin to measure time in simple ways. E.g. counting the number of sleeps, using a timer to measure duration.		
Progression	**Nursery expectations:** •To represent a given number to 5 using a five frame, fingers and number fan. •Explore capacity practically - full & empty •To begin to compare two objects by length and height •Introduce Days of the week with support/ visual aids, begin to recognise arrangements on a dice (subitise up to 5) •To begin to add one more (practically) within 5.				

	**Year 1 expectations:** •Count up to and beyond 100, forwards and backwards • Count, read and write numbers up to 100 in numerals • Read and write numbers from one to 20 in words • Count in twos, fives and tens up to the tenth multiple • Say one more or one less than a given number up to 100 • Compare numbers using the language: equal to, more than, less than, fewer, most, least • Identify and represent numbers up to 100 in different ways • Use their knowledge of place value to explain concepts of number • Use number and place value skills fluently to solve a variety of problems • Read, write and understand calculations involving addition (+), subtraction (–) and equals (=) signs • Recall number facts to ten and related subtraction facts, using these to derive number facts to 20 • Add and subtract one-digit and two-digit numbers to 20, including zero • Solve one-step problems in familiar contexts, that involve addition and subtraction, using equipment, pictures and models • Use number facts to solve missing number problems • Describe and compare lengths, heights, capacities, and weights using mathematical vocabulary • Measure length, heights, capacities, weights and times using standard and non-standard units • Understand fully-numbered scales, such as on a ruler or measuring jug • Reason about measurements to solve practical problems • Sequence familiar events in chronological order • Order the days of the week and months of the year • Tell the time to the hour and half past the hour on an analogue clock • Draw the hands on an analogue clock face to show the hour and half past the hour.				
Cross curricular links / examples	Noah's Ark – putting animals in matching pairs. Role play – supermarket – scales – open/ closed hours.				
<u>Spring 2</u>	Number: Representing Composition Comparing Number Bonds 3D Shapes	•Have a deep understanding of number to 5, including the composition of each number •Compare quantities up to 5 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; •To practically begin to represent number bonds up to 5. •To explore 3D shapes within construction activities.	•Have a deep understanding of number to 10, including the composition of each number •Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; •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. •To be able to build using a range of 3D shapes. •To begin to construct their own 3D shape	•Problem solving & reasoning.	____ and ____ make 5. ____ and ____ make 10. Less than More than Same as Double Corners Edges Faces Cube Sphere Pyramid Cuboid Cone cylinder

	Pattern Consolidation – recap and consolidate learning so far.	•To predict what comes next in a two stage pattern.	•To begin to know some of the names of some 3D shapes – cube, sphere, pyramid, cuboid, cone, cylinder •Explore and represent patterns ABB, AAB, AABB, AABBB		
Progression 	**Nursery -** •To represent a given number to 5 using a five frame, fingers and number fan •To replicate a 2 stage pattern. **Year 1 expectations:** •Count up to and beyond 100, forwards and backwards • Count, read and write numbers up to 100 in numerals • Read and write numbers from one to 20 in words • Count in twos, fives and tens up to the tenth multiple • Say one more or one less than a given number up to 100 • Compare numbers using the language: equal to, more than, less than, fewer, most, least • Identify and represent numbers up to 100 in different ways • Use their knowledge of place value to explain concepts of number • Use number and place value skills fluently to solve a variety of problems •Recognise 2D and 3D shapes in real life • Recognise 2D and 3D shapes in different sizes and orientations.				
Cross curricular links / examples	Lifecycles - observing and recording changes over time (sequencing) Junk modelling – butterfly/ minibeasts homes – identifying what shapes they need.				
<u>Summer 1</u>	Number: Representing Composition Comparing Counting patterns beyond 10.	• Have a deep understanding of number to 5, including the composition of each number • Compare quantities up to 5 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity • Verbally count beyond 10, recognising the pattern of the counting system	• Have a deep understanding of number to 10, including the composition of each number • Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity • Verbally count beyond 20, recognising the pattern of the counting system	• Problem solving & reasoning.	____ and ____ make 5. ____ and ____ make 10. Less than More than Same as Add Takeaway Plus Minus Odd Even equal

	Addition and taking away Doubling, Sharing/ Grouping Even & odd	• To use real objects to see that a quantity can be changed by adding more or taking away within 5. • To represent number stories using ten frames and fingers within 5. • Explore and represent patterns within numbers up to 5, beginning to explore with support evens and odds, double facts and how quantities can be distributed equally.	• To use real objects to see that a quantity can be changed by adding more or taking away within 10. • To represent number stories using ten frames and fingers within 10. • Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.		
Progression 	**Nursery:** • To represent a given number to 5 using a five frame, fingers and number fan • To begin to add/ take one away (practical objects) from a group within 5. **Year 1 expectations:** •Count up to and beyond 100, forwards and backwards • Count, read and write numbers up to 100 in numerals • Read and write numbers from one to 20 in words • Count in twos, fives and tens up to the tenth multiple • Say one more or one less than a given number up to 100 • Compare numbers using the language: equal to, more than, less than, fewer, most, least • Identify and represent numbers up to 100 in different ways • Use their knowledge of place value to explain concepts of number • Use number and place value skills fluently to solve a variety of problems •Read, write and understand calculations involving addition (+), subtraction (–) and equals (=) signs • Recall number facts to ten and related subtraction facts, using these to derive number facts to 20 • Add and subtract one-digit and two-digit numbers to 20, including zero • Solve one-step problems in familiar contexts, that involve addition and subtraction, using equipment, pictures and models • Use number facts to solve missing number problems •Count the number of groups they have made • Find how many groups make a given total • Double a number using equipment • Use doubling and halving to solve problems • Make a context from an array • Name halves and quarters • Explain that a half is one of two equal parts that make a whole • Explain that a quarter is one of four equal parts that make a whole.				
Cross curricular links / examples	Treasure chests – sharing buried treasure. Pirate picnic – sharing our sandwiches/ food- everyone is equal.				
<u>Summer 2</u>	Doubling, Sharing/ Grouping Even & odd	• Explore and represent patterns within numbers up to 5, beginning to explore with support evens and odds, double	• Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.	• Problem solving and reasoning.	____ and ____ make 5. ____ and ____ make 10. Less than More than Same as

	Spatial reasoning Consolidating and gaining a deeper understanding	facts and how quantities can be distributed equally. • To copy and arrangement of shapes using visual cues, beginning to use positional language - on top, underneath, next to.	• To be able to match arrangement of shape, using positional language to describe where shapes are in relation to one another. • Children have the opportunity to engage in extended problem solving and have the opportunity to consolidate previously taught mathematical skills and concepts ready for transition into year 1		Add Takeaway Plus Minus Odd Even Equal Above Below Next to Behind In front
Progression 	**Nursery:** • To begin to respond to simple positional language. **Year 1 expectations:** •count the number of groups they have made • Find how many groups make a given total • Double a number using equipment • Use doubling and halving to solve problems • Make a context from an array • Name halves and quarters • Explain that a half is one of two equal parts that make a whole • Explain that a quarter is one of four equal parts that make a whole • Describe turns, including quarter, half and whole turns • Begin to recognise and use the clockwise direction to turn • Describe position including left, right, above and below •Describe movement including forwards and backwards.				
Cross curricular links / examples	Shape/ positional language – kite making/ flying.				