Futures Are Limitless

Falmouth Primary Academy

Maths in Early Years

The EYFS Programme of Study for maths states that 'Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically.' At Falmouth Primary School, we support this essential learning using materials from the Mastering Number NCETM programme, which encompasses skills of subitising, cardinality, composition and comparison.

Daily Adult-led maths learning begins from week 1 in Early Years, and is complemented and embedded through a wide range of learning opportunities provided throughout our Early Years environment both inside and outside. We give children practice time to master skills in small focus groups after whole class direct instruction, this is delivered via our Maths Carousel of activities which provide adult-led and independent activities to support the key skill we are learning.

We provide daily fast track and precision teach 1-1 sessions to support all children to secure their foundational knowledge ready for Year One, with a focus on number recognition to 10. Above all, we aim to lay a foundation for mathematical learning that is positive, curious and confident in learning and exploring, supporting ongoing learning in this core subject across the school.

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Mastering Number NCETM Programme

Autumn Term	
Number	
Autumn 1	Autumn 2
• Fast recognition of up to 3 objects, without having to count them individually ('subitising'). • Compare collections and talk about which group has more or less things. • 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. • Say number words in sequence (1-5).	• Subitise. • Count objects, actions and sounds. • Explore the composition of numbers up to 5. • Say number words in sequence 1-5. • Check that groups are equal by matching on a one-to-one basis. • Counts objects in an irregular arrangement. • Link the number symbol to its cardinal number value.
Numerical Patterns	
Autumn 1	Autumn 2
• Recite numbers past 5. • Say one number for each item in order.	• Understand the 'one more than/one less than' relationship between consecutive numbers.
Shape, Space and Measure	
Autumn 1	Autumn 2
• Select shapes appropriately. • 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. • Make constructions, patterns and pictures and select shapes which will fit when rotated or flipped in insert boards, shape sorters and jigsaws.	• Move themselves and objects around so that they see things from different perspectives. • Visualise how things will appear when turned around and imagine how things might fit together. • Say number words in sequence 1-5. • Make constructions, patterns and pictures and select shapes which will fit when rotated or flipped in insert boards, shape sorters and jigsaws. • 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'. • Construct and create things that represent objects in their environment. • Discuss items built in terms of how towers are built and why certain shapes are chosen to make a tower and the space that has been created within an enclosure. • Extend and create ABAB patterns – stick, leaf, stick, leaf. • Make comparisons between objects relating to size, length, weight and capacity.

Spring Term

Number

Spring 1	Spring 2
• Identify smaller numbers within a number (conceptual subitising). • Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts). • Partition a number in a range of ways and identify that the pairs of numbers make the same total. • Say number words in sequence 1-10. • Check that groups are equal by matching on a one-to-one basis. • Counts objects from a larger group. • Match numeral to quantity. • Recognise amounts that have been rearranged remain the same if nothing has been added or taken away (conservation).	• Begin to identify missing number bonds to 5 moving on to 10. • Build numbers using 5 and a bit partitioning. • Say number words in sequence 1-10. • Counts objects from a larger group. • Match numeral to quantity. • Say when a number does not match a quantity. • Recognise that if they add one they will get the next number and if they subtract one they will get the previous number. • Understand that a number can be partitioned into more than two groups.

Numerical Patterns

Spring 1	Spring 2
• ELG Explore and represent patterns within numbers up to 5 including evens and odds, double facts and how quantities can be distributed equally.	• ELG Explore and represent patterns within numbers up to 10 including evens and odds, double facts and how quantities can be distributed equally.

Shape, Space and Measure

Spring 1	Spring 2
• Select, rotate and manipulate shapes in order to develop spatial reasoning skills. • Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. • Continue, copy and create repeating patterns. • Spot an error in an AB pattern • Identify the unit of repeat in a pattern. • Continue, copy and create repeating patterns including an ABC and ABB pattern. • Notice the results of rotating and reflecting images and visualising them. • Use the language of position and direction. • Represent spatial relationships in small world play. • Construct and create things that represent objects in their environment. • Notice shape properties of objects that they want to represent and think about the appropriateness of the shapes they choose.	• Compare length, weight and capacity using related vocabulary. • Select, rotate and manipulate shapes in order to develop spatial reasoning skills. • Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. • Explore shapes, the attributes of particular shapes and select shapes to fulfil a particular need. • Continue an ABBC pattern. • Continue a pattern which ends mid unit of repeat. • Use the language of position and direction. • Represent spatial relationships in small world play. • Notice shape properties of the objects that they want to represent and think about the appropriateness of the shapes they choose.

Summer Term	
Number	
Summer 1	Summer 2
• Have a deep understanding of number to 10, including the composition of each number. • Counting larger sets of objects. • Comparison of numbers and quantities. • Subitise (recognise quantities without counting) up to 5. • Say number words in sequence (beyond 10). • Compare numbers which are far apart, near to and next to each other. • Understand how many things are hidden from a known quantity.	• Have a deep understanding of number to 10, including the composition of each number. • Counting larger sets of objects. • Comparison of numbers and quantities. • Subitise (recognise quantities without counting) up to 5. • Say number words in sequence beyond 10. • Compare numbers which are far apart, near to and next to each other.
Numerical Patterns	
Summer 1	Summer 2
• Verbally count beyond 20, recognising the pattern of the counting system. ELG • Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally. • 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. • ELG Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally. • Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.
Shape, Space and Measure	
Summer 1	Summer 2
• Compare length, weight and capacity using related vocabulary. • Show an awareness of comparison in estimating and predicting. • Recognise the relationship between the size and number of units. • Use units to compare things. • Select, rotate and manipulate shapes in order to develop spatial reasoning skills. • Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. • Create their own ABBC pattern. • Use symbols to represent a pattern.	• Compare length, weight and capacity using related vocabulary. • Show an awareness of comparison in estimating and predicting. • Recognise the relationship between the size and number of units. • Use units to compare things. • Use time to sequence events. • Experience specific time spans in order to start to develop an overall sense of time. • Select, rotate and manipulate shapes in order to develop spatial reasoning skills. • Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. • Create a pattern which works as a circle. • Create a cyclical pattern which works with a fixed number of spaces.