

Maths in the Early Years at Millfields First School

The EYFS framework is structured very differently to the national curriculum as it is organised across seven areas of learning rather than subject areas. This document demonstrates which statements from the 2020 Development Matters are prerequisite skills for mathematics within the national curriculum. The table below outlines the most relevant statements taken from the Early Learning Goals in the EYFS statutory framework and the Development Matters age ranges for Three and Four-Year-Old's and Reception to match the programme of study for mathematics.

The most relevant statements for mathematics are taken from the following areas of learning:

- Communication and Language
- Mathematics

Mathematical Vocabulary			
Three- and Four-Year Olds	Communication and Language		Use a wider range of vocabulary. <ul style="list-style-type: none"> • Understand 'why' questions, like: "why do you think the caterpillar is so fat?"
Reception	Communication and Language		Learn new vocabulary. <ul style="list-style-type: none"> • Use new vocabulary throughout the day.
ELG	Communication and language	Speaking	<ul style="list-style-type: none"> • Participate in small group, class, and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.

Number and Place Value - Counting			
Three- and Four-Year Olds	Mathematics		<ul style="list-style-type: none"> • Recite numbers past 5. • Say one number name 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').
Reception	Mathematics		<ul style="list-style-type: none"> • Count objects, actions, and sounds. • Count beyond ten.
ELG	Mathematics	Numerical Patterns	<ul style="list-style-type: none"> • Verbally count beyond 20, recognising the pattern of the counting system.

Number and Place Value – Identifying, Representing and Estimating Numbers			
Three- and Four-Year Olds	Mathematics		<ul style="list-style-type: none"> • Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). • 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.
Reception	Mathematics		<ul style="list-style-type: none"> • Subitise. • Link the number symbol (numeral) with its cardinal number value.
ELG	Mathematics	Number	<ul style="list-style-type: none"> • Subitise (recognising quantities without counting) up to 5.

Number and Place Value – Reading and Writing Numbers

Three- and Four-Year Olds	Mathematics	<ul style="list-style-type: none"> • 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.
Reception	Mathematics	<ul style="list-style-type: none"> • Link the number symbol (numeral) with its cardinal number value.

Number and Place Value – Compare and Order Numbers

Three and Four-Year-Olds	Mathematics	<ul style="list-style-type: none"> • Compare quantities using language: ‘more than’, ‘fewer than’. 	
Reception	Mathematics	<ul style="list-style-type: none"> • Compare numbers. 	
ELG	Mathematics	Numerical Patterns	<ul style="list-style-type: none"> • Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.

Number and Place Value – Understanding Place Value

Reception	Mathematics	<ul style="list-style-type: none"> • Understand the ‘one more than/one less than’ relationship between consecutive numbers. • Explore the composition of numbers to 10 	
ELG	Mathematics	Number	<ul style="list-style-type: none"> • Have a deep understanding of numbers to 10, including the composition of each number.

Number and Place Value – Solve Problems

Three- and Four-Year Olds	Mathematics	<ul style="list-style-type: none"> • Solve real world mathematical problems with numbers up to 5.
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Addition and Subtraction – Mental Calculations

Reception	Mathematics	<ul style="list-style-type: none"> • Automatically recall number bonds for numbers 0-5 and some to 10. 	
ELG	Mathematics	Number	<ul style="list-style-type: none"> • 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.

Solve Problems

ELG	Mathematics	Numerical Patterns	<ul style="list-style-type: none"> • Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed evenly.
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Measurement – Describe, Measure, Compare and Solve (all strands)

Three and Four-Year-Olds	Mathematics	<ul style="list-style-type: none"> • Make comparisons between objects relating to size, length, weight, and capacity.
Reception	Mathematics	<ul style="list-style-type: none"> • Compare length, weight, and capacity

Measurement – Telling the Time

Three and Four-Year-Olds	Mathematics	<ul style="list-style-type: none"> Begin to describe a sequence of events, real or fictional, using words, such as 'first', 'then...'
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Properties of Shapes

Three and Four-Year-Olds	Mathematics	<ul style="list-style-type: none"> 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'. Select shapes appropriately: flat surfaces for a building, a triangular pattern for a roof, etc. Combine shapes to make new ones – an arch, a bigger triangle, etc.
Reception	Mathematics	<ul style="list-style-type: none"> Select, rotate, and manipulate shapes in order to develop spatial reasoning skills.

Compare and Classify Shapes

Reception	Mathematics	<ul style="list-style-type: none"> Compose and decompose shapes so that children can recognise a shape can have other shapes within it, just as numbers can.
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Position and Direction

Three and Four-Year-Olds	Mathematics	<ul style="list-style-type: none"> 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'.
Reception	Mathematics	<ul style="list-style-type: none"> Draw information from a simple map.

Patterns

Three and Four-Year-Olds	Mathematics	<ul style="list-style-type: none"> 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.
Reception	Mathematics	<ul style="list-style-type: none"> Continue, copy, and create repeating patterns.

Statistics – Record, Represent and Interpret Data

Three and Four-Year-Olds	Mathematics	<ul style="list-style-type: none"> Experiment with their own symbols and marks, as well as numerals.
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In Reception we have daily maths sessions which are very practically based. We emphasise that numbers are all around us from telling the time, the date, days of the week, the months of the year to seeing numbers on doors, street signs, car number plates and in shops etc. We explore maths through song and rhyme time, games, and stories. Examples of stories used are Traditional Tales such as Goldilocks and the Three Bears with a measurement focus, Rosie's Walk when introducing positional language, The Shopping Basket when exploring subtraction – one less, and The Hungry Caterpillar which focuses on the days of the week and quantities.

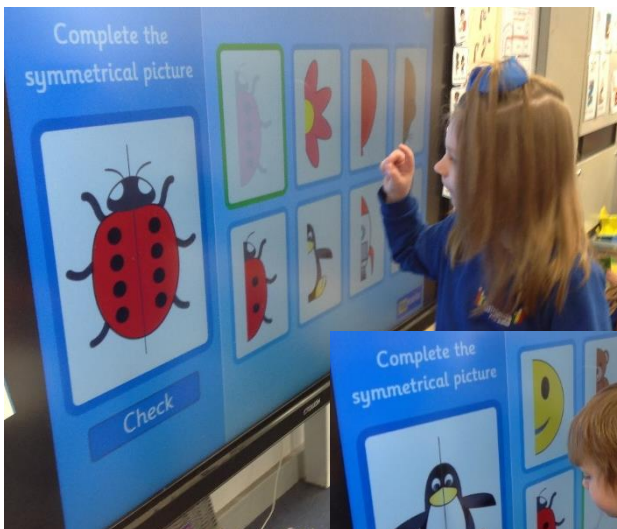
Numbers are taught in different contexts where links are made. For example, when introducing the number 3 we look at 3 in relation to shape - a triangle has 3 sides and 3 points, looking at shape in the environment, natural and manmade; time – telling the time to 3 o'clock, how to make 3p using different coins, number on dice, on computer keyboards, telephones, measuring containers, and how we can match numbers to their appropriate quantity through 1:1 correspondence.

It is important that the children understand the oneness of a number for example, by being able to explain how 10 ones make 10 and know how many ones are in 8. It is our aim to develop in the children, a deeper understanding of number and how it is transferable to different concepts.

In Early Years maths is delivered in a very practical hands-on way allowing for lots of exploration, experimentation, and evaluation by the children. Our weekly Rainbow Challenges include a differentiated maths related task which is completed independently using skills taught in previous sessions. Easily accessible mathematical resources are available to the children at all times both in the classroom and in the outdoor area, the interactive screen is always accessible for the children to explore mathematical related games and problem-solving activities.

Ongoing observations and assessments, ensure that the children are challenged to reach their full potential by being provided with appropriate tasks.

Exploring symmetry in different mediums

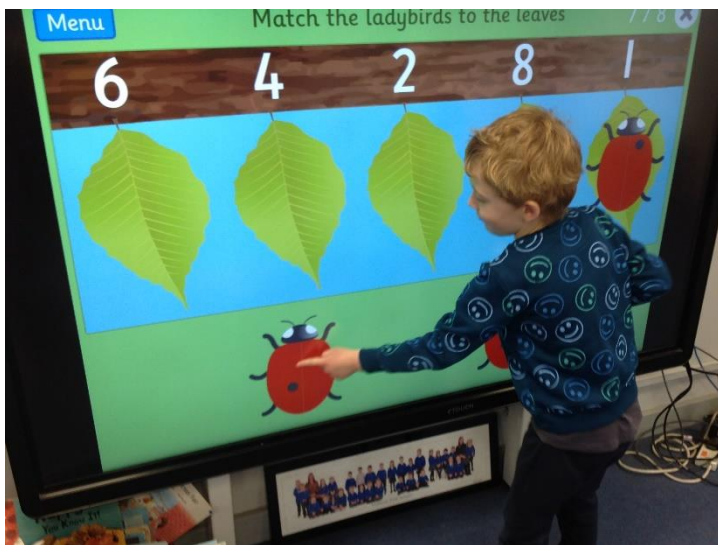




Generating and recording addition calculations with jumping frogs.



Using a number line to solve answers.



Matching numbers to quantities

Exploring halving, doubling, and sharing with packets of sweets.





Exploring money playing the shopping list game.



Practising number formation whilst playing bingo.