Mathematics Learning Links in the EYFS

The EYFS framework, and our own EYFS curriculum, is structured very differently to the national curriculum as it is organised across seven areas of learning rather than subject areas.

Based on the statements from the 2020 Development Matters document, this document describes the skills that need to be developed in the EYFS for children to access 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-Olds 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. • Understand 'why' questions, like: "why do you think the caterpillar is so fat?"
Reception	Communication and Language		• Learn new vocabulary. • Use new vocabulary throughout the day.
ELG	Communication and Language	Speaking	• 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		• 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		• Count objects, actions and sounds. • Count beyond ten.
ELG	Mathematics	Numerical Patterns	• Verbally count beyond 20, recognising the pattern of the counting system.
Identifying, Representing and Estimating Numbers			
Three and Four-Year-Olds	Mathematics		• 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		• Subitise. • Link the number symbol (numeral) with its cardinal number value.
ELG	Mathematics	Number	• Subitise (recognising quantities without counting) up to 5.

Reading and Writing Numbers			
Three and Four-Year-Olds	Mathematics		• 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		• Link the number symbol (numeral) with its cardinal number value.
Compare and Order Numbers			
Three and Four-Year-Olds	Mathematics		• Compare quantities using language: 'more than', 'fewer than'.
Reception	Mathematics		• Compare numbers.
ELG	Mathematics	Numerical Patterns	• Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.
Understanding Place Value			
Reception	Mathematics		• Understand the 'one more than/one less than' relationship between consecutive numbers. • Explore the composition of numbers to 10.
ELG	Mathematics	Number	• Have a deep understanding of numbers to 10, including the composition of each number.
Solve Problems			
Three and Four-Year-Olds	Mathematics		• Solve real world mathematical problems with numbers up to 5.

Addition and Subtraction			
Mental Calculations			
Reception	Mathematics		• Automatically recall number bonds for numbers 0-5 and some to 10.
ELG	Mathematics	Number	• 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	• Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed evenly.

Measurement			
Describe, Measure, Compare and Solve (All Strands)			
Three and Four-Year-Olds	Mathematics		• Make comparisons between objects relating to size, length, weight and capacity.
Reception	Mathematics		• Compare length, weight and capacity.
Telling the Time			
Three and Four-Year-Olds	Mathematics		• Begin to describe a sequence of events, real or fictional, using words, such as 'first', 'then…'

Properties of Shapes		
Recognise 2D and 3D Shapes and their Properties		
Three and Four-Year-Olds	Mathematics	• 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	• Select, rotate and manipulate shapes in order to develop spatial reasoning skills.
Compare and Classify Shapes		
Reception	Mathematics	• Compose and decompose shapes so that children can recognise a shape can have other shapes within it, just as numbers can.

Position and Direction		
Position, Direction and Movement		
Three and Four-Year-Olds	Mathematics	• 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	Understanding the World	• Draw information from a simple map.
Patterns		
Three and Four-Year-Olds	Mathematics	• 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	• Continue, copy and create repeating patterns.

Statistics		
Record, Present and Interpret Data		
Three and Four-Year-Olds	Mathematics	• Experiment with their own symbols and marks, as well as numerals.

These are the building blocks that will enable the children to access the national curriculum programmes of study for Mathematics in Year 1.