Mathematics in EYFS:
What Maths Subject Leaders Need to Know

The EYFS framework is structured very differently to the national curriculum as it is organised across seven areas of learning rather than subject areas. The aim of this document is to help subject leaders to understand how the skills taught across EYFS feed into national curriculum subjects.

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-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

Taken from St Mary's Catholic Academy EYFS LTP 22-23

Nursery	Children will rote count to 5. Chn to show finger numbers up to 5 Chn to subitise up to 3 Children will sort and match by colour and shape of objects Children will sequence events using language including first, then and after. Children will identify patterns around them such as stripes on clothes.	Children will count to 5 using 1:1 correspondence (touch counting objects). Chn to link numerals to amounts to 5 Chn to subitise to 3 Chn to creating and extend ABAB patterns Chn to sort and match objects by size and shape Children will compare big and small. Children will identify a circle, square and triangle.	Children will count in 1:1 correspondence to 5, knowing that the total is 5 (cardinal principle). Solve real world mathematical problems with numbers up to 5. Compare quantities using language: 'more than', 'fewer than' Notice and correct errors in patterns Children will use language including tall, long, short. Children will identify a rectangle and a	Children will rote count to 10. Children will identify more/less. To say which group has more To say which group has less To compare quantities to 3 Describe a sequence of events Children will use positional language including on top, under, next to and behind. Children will match objects that are the same.	Children will count in correspondence to 10. Children will be confident in subitising to 3. To develop confidence and skill in numbers to 5 Compare quantities to 5 using language: 'more than', 'fewer than' Children will solve real world maths problems with numbers up to 5. To measure using capacity including using the language light, heavy, full	Children will count and recognise numbers to 5 To develop confidence and skill in numbers to 5 Compare quantities using language: 'more than', 'fewer than' To create a shape picture (transport) Can describe a familiar route Children will make an AB repeating pattern. Children will notice and correct an error

		Children will use language including sides, corners, straight, flat and round.	cube.	Children will identify a circle, square and triangle.	and empty. Children will make shape pictures using a tangram. Chn will identify a rectangle and a cube	in a repeating pattern. Children will discuss routes and locations using words such as 'in front of' and 'behind'.
Reception	Children will represent, compose and compare numbers to 3. Children will match and sort. Children will compare amounts, size, mass and capacity. Children will make ABAB patterns. Chn can subitise to 3 and is beginning to subitise to 5	Children can rote count to 10 Children will represent, compose and compare numbers to 5. Children will identify and describe circles, triangles, squares and rectangles. Children will use positional language including under, over, around and through. Children will identify one more and one less within 5.	Children will know number bonds to 5. Children will identify 0. Children will represent, compose and compare numbers to 8. Children can link the numeral to its cardinal value Chn can say the number one more/one less Than a given number to 10 Children will compare mass and capacity. Children will make pairs.	Children can rote count to 20 Children will know number bonds to 5. Children will combine 2 groups. Children will explore length, height and time. Children will compare numbers to 10. Children will identify a cube, sphere, cylinder and cone. Children will make ABB/AAB repeated patterns.	Chn can recognise some number bonds to 10 Children will count forwards and backwards within 10. Children will build and identify numbers to 20. Children will match patterns using tangrams and shapes. Children will add more and take away within 20.	Children will double within 10. Children will equally share into two groups. Children will identify even and odd numbers up to 10. Children will verbally count beyond 20. Children can represent patterns within numbers – evens/odds, doubles, equal distribution, sharing.

Outcomes from Development Matters

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.