

Early Maths

The first few years of a child's life are especially important for mathematics development. Research shows that early mathematical knowledge predicts later reading ability and general education and social progress. Conversely, children who start behind in mathematics, tend to stay behind throughout their whole educational journey. The objective for those working in Early Years, is to ensure that all children develop firm mathematical foundations in a way that is engaging, and appropriate for their age.

EYFS @ Waterloo

Mathematics within the EYFS is developed through purposeful, play based experiences and will be represented throughout the indoor and outdoor provision. The learning is based on pupil's interests and current themes and will focus on the expectations from Development Matters / Early Years Outcomes. They will also follow the guidance given by the NCETM Early Years Typical Progression Charts and Reception will use the White Rose Schemes of Learning. Mathematical understanding will be developed through stories, songs, games, imaginative play, child-initiated learning and structured teaching. As pupils progress, they will be encouraged to record their mathematical thinking in a more formal way.

White Rose Maths

This guidance underpins the Educational Programme of Mathematics (DfE March 2021) and supports a curriculum that embeds mathematical thinking and talk in preparation for a mastery curriculum. The overviews support the ethos of the EYFS whilst at the same time enabling teachers to create a mathematically rich curriculum. Additionally, it allows for key mathematical concepts to be revisited and developed further across the year.

The guidance has been divided into ten phases and provides a variety of opportunities to develop the understanding of number, shape, measure and spatial thinking.

Early Maths @ Waterloo

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Nursery Yearly Overview

Term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Counting Begins to count to 5. Can say one number for each item in order: 1,2,3,4,5	Cardinality	Comparison	Composition	Counting Shows 'finger numbers' up to 5. Begins to recognise numerals 0 to 5. Begins to recite numbers past 5 Uses some number names and number language within play and may show a fascination with large numbers.	Cardinality Fast recognition of up to 3 objects, without having to count them individually ('subitising'). Knows that the last number reached when counting a small set of up to 5 objects tells you how many there are in total.	Comparison Uses basic comparative language within play.	Composition Through play and exploration, begins to learn that numbers are made up of smaller numbers.				
	Spatial Awareness Enjoys navigating around the classroom and respond to some positional language.	Shape Selects shapes appropriately.	Pattern Can talk about and identify the patterns around them.	Measure	Spatial Awareness Plays freely with the small bikes and balancing resources.	Shape Can respond to both informal language and common 2D shape names.	Pattern Creates their own patterns showing some organisation or regularity.	Measure Can make comparisons between objects relating to size and length.				
Spring	Counting Says one number for each item in order: 6, 7, 8,9, 10. Begins to start counting to 10.	Cardinality Links numerals and amounts up to 5. Starts to experiment with their own symbols and marks as well as numerals	Comparison Confidently compares two small groups of up to five objects in each group.	Composition Can solve real world mathematical problems with numbers in play and meaningful activities.	Counting Begins to recognise some numerals 6- 10.	Cardinality Can confidently link numerals to amounts up to 5 and beyond.	Comparison Starts to compare quantities using language: 'more than,' 'fewer than.'	Composition Begins to recognise that one counting number is one more than before.				

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Term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
	Spatial Awareness Responds to and uses language of position and direction.	Shape Shows awareness of shape similarities and differences.	Pattern Can notice and correct an error in a repeating pattern.	Measure Makes comparisons between objects relating to weight and capacity in meaningful contexts.	Spatial Awareness Understands position through words alone.	Shape Can talk about and explore 2D and 3D shapes.	Pattern Explores and adds to a simple linear pattern of two or three repeating items.	Measure Begins to describe a sequence of events.				
Summer	Counting Enjoys counting as high as they can go (with a focus on counting to 10 in songs).	Cardinality Can confidently use their own marks and signs they ascribe mathematical meanings.	Comparison Confidently can compare quantities within 5.	Composition Separates a group of three or four objects in different ways, beginning to recognise the totals still the same.	Counting Recap and revisit. Reception prep.	Cardinality Recap and revisit. Reception prep.	Comparison Recap and revisit. Reception prep.	Composition Recap and revisit. Reception prep.				
	Spatial Awareness Predicts, moves and rotates objects to fit the space or will create a shape they would like.	Shape Attempts to create arches and enclosures when building.	Pattern Joins in with simple patterns in sounds, objects, games, stories, dances and movements- predicting what comes next.	Measure Recap and review all learning.	Spatial Awareness Can describe a familiar route. Recap and revisit. Reception prep.	Shape Recap and revisit. Reception prep.	Pattern Recap and revisit. Reception prep.	Measure Recap and revisit. Reception prep.				

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Reception Yearly Overview

Term	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13
Autumn	Getting to Know You Opportunities for settling in, introducing the areas of provision and getting to know the children. Key times of the day, class routines. Exploring the continuous provision inside and out. Where do things belong? Positional language.			Just Like Me! Number Match and sort. Compare amounts Measure, Shape and Spatial Thinking Compare size, mass and capacity Exploring pattern			Let's Me 1, 2, 3! Number Representing 1, 2 and 3 Comparing 1, 2 and 3 Composition of 1, 2 and 3 Measure, Shape and Spatial Thinking Circles and Triangles Positional Language			Light and Dark Number Representing Numbers to 5 One More and Less Measure, Shape and Spatial Thinking Shapes with 4 Sides Time			Consolidation
	Alive in 5! Number Introducing zero Comparing numbers to 5 Composition of 4 and 5 Measure, Shape and Spatial Thinking Compare mass (2) Compare capacity (2)			Growing 6, 7, 8 Number 6, 7 and 8 Combining 2 amounts Making pairs Measure, Shape and Spatial Thinking Length and Height Time			Building 9 and 10 Number Counting to 9 and 10 Comparing numbers to 10 Bonds to 10 Measure, Shape and Spatial Thinking 3-D Shapes Spatial Awareness Pattern			Consolidation			
Spring	To 20 and Beyond Number Building Numbers Beyond 10 Counting Patterns Beyond 10 Measure, Shape and Spatial Thinking Spatial Reasoning (1) Match, Rotate, Manipulate			First Then Now Number Adding More Taking Away Measure, Shape and Spatial Thinking Spatial Reasoning (2) Compose and Decompose			Find my Pattern Number Doubling Sharing and Grouping Even and Odd Measure, Shape and Spatial Thinking Spatial Reasoning (3) Visualise and Build			On the Move Number Deepening Understanding Patterns and Relationships Measure, Shape and Spatial Thinking Spatial Reasoning (4) Mapping			Consolidation
Summer													

MASTERING NUMBER PROGRAMME

Teachers in EYFS also provide an additional daily maths lesson following The NCETM Mastering Number Programme, which is aimed at **strengthening the understanding of number, fluency with number facts and developing good number sense among children in the first three years of school.**

Over time, children will leave KS1 with fluency in calculation and a confidence and flexibility with number. Attention is given to key knowledge and understanding needed in Reception classes, and progression through KS1 to support success in the future.

More information can be found here - <https://www.ncetm.org.uk/maths-hubsprojects/mastering-number/>

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