

Curriculum

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 the National Curriculum subjects.

The Educational Programme within the Statutory Framework for the Early Years 2021 states

Mathematics

Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.

At Botley School we use Development Matters (non-statutory guidance) to support our curriculum. This is an outline of the learning within Development Matters that link to Maths.

Mathematical Vocabulary			
Three and Four-Year-Olds (Nursery)	Communication and Language		<ul style="list-style-type: none"> Use a wider range of vocabulary. Understand 'why' questions, like: "why do you think the caterpillar is sofat?"
Reception	Communication and Language		<ul style="list-style-type: none"> Learn new vocabulary. Use new vocabulary throughout the day.
Early Learning Goal	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 (Nursery)	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.
Early Learning Goal	Mathematics	Numerical Patterns	<ul style="list-style-type: none"> Verbally count beyond 20, recognising the pattern of the counting system.
Identifying, Representing and Estimating Numbers			
Three and Four-Year-Olds (Nursery)	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.
Early Learning Goal	Mathematics	Number	<ul style="list-style-type: none"> Subitise (recognising quantities without counting) up to 5.

Reading and Writing Numbers		
Three and Four-Year-Olds (Nursery)	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.
Reading and Writing Numbers		
Three and Four-Year-Olds (Nursery)	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.
Early Learning Goal	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.
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.
Early Learning Goal	Mathematics	Number <ul style="list-style-type: none"> Have a deep understanding of numbers to 10, including the composition of each number.
Solve Problems		
Three and Four-Year-Olds (Nursery)	Mathematics	<ul style="list-style-type: none"> Solve real world mathematical problems with numbers up to 5.
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.
Early Learning Goal	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		
Early Learning Goal	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.
Measurement		
Describe, Measure, Compare and Solve (All Strands)		
Three and Four-Year-Olds (Nursery)	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.
Telling the Time		
Reception	Mathematics	<ul style="list-style-type: none"> Begin to describe a sequence of events, real or fictional, using words, such as 'first', 'then...'

Properties of Shape		
Recognise 2D and 3D Shapes and their Properties		
Three and Four-Year-Olds (Nursery)	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.
Position and Direction		
Position, Direction and Movement		
Three and Four-Year-Olds (Nursery)	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	Understanding of the World	<ul style="list-style-type: none"> Draw information from a simple map.
Patterns		
Three and Four-Year-Olds (Nursery)	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, Present and Interpret Data		
Three and Four-Year-Olds (Nursery)	Mathematics	<ul style="list-style-type: none"> Experiment with their own symbols and marks, as well as numerals.

Maths coverage of objectives

See 'Progression in Mathematics (Maths Mastery)' Document and 'Maths long term planning in Nursery / Reception'

Continuous provision

In Early Years, learning does not just happen during the adult led activities but also in our well-planned continuous provision. Here are some ways that Maths is taught within continuous provision. There is a designated Maths area of the classrooms which will enhance the learning experiences in all areas of Maths and has not been included in the list below.

Water / sand play	<ul style="list-style-type: none"> Exploring and talking about capacity Making comparisons between objects and their capacity Problem solving
Construction play	<ul style="list-style-type: none"> Exploring and talking about size, height, weight and length

	<ul style="list-style-type: none"> • Making comparisons between objects and their size, height, weight and length • Using various resources to make patterns and shapes • Estimating • Counting and one-to-one correspondence • Representing numbers in different ways • Problem solving
Junk modelling / craft activities	<ul style="list-style-type: none"> • Exploring and talking about size and shapes including properties • Estimating and using resources for a purpose (matching size, shape etc.) • Problem solving
Snack	<ul style="list-style-type: none"> • Capacity (filling cups) • Counting and one-to-one correspondence • Halving (cutting fruit) • Problem solving
Role-play	<ul style="list-style-type: none"> • Counting and one-to-one correspondence • Talking about and recognising numerals (washing line with numbers) • Problem solving
Cooking opportunities	<ul style="list-style-type: none"> • Counting aloud, counting 1-1 correspondence etc. • Understanding quantities • Measuring • Problem solving
Playdough	<ul style="list-style-type: none"> • Using different shaped and sized cutters • Making 3D shapes • Problem solving
Musical activities (inside and out)	<ul style="list-style-type: none"> • Counting songs • Keeping the beat • Responding to patterns and rhythms
Classroom environment	<ul style="list-style-type: none"> • Visual timetable showing time based events • Birthday calendars • Calendar for the day – day, months, numbers, season etc.
Mud kitchen	<ul style="list-style-type: none"> • Exploring and talking about capacity • Making comparisons between objects and their capacity • Problem solving
Outdoor play	<ul style="list-style-type: none"> • Exploring and talking about capacity • Making comparisons between objects and their capacity, height, weight, height • Counting aloud, counting objects, recognising numerals etc. • Noticing, exploring and talking about shapes in environment • Noticing, exploring, talking and making patterns using natural materials as well as resources • Problem solving
Routines	<p>There will be many Mathematical concepts learnt through routines. Here are some:</p> <ul style="list-style-type: none"> • Calendar: Days of the week / months of the year • Counting – children / who is here today? How many children are not here today? In Reception linked to tens frame • Counting songs

Characteristics of Effective Teaching and Learning

The Characteristics of Effective Teaching and Learning play a crucial role in how a child learns.

Playing and exploring	Motivation	Critically thinking
Finding out and exploring <ul style="list-style-type: none"> I show curiosity about objects, events and people. I am showing particular interests. I engage in open-ended activities. I use my senses to explore the world around me. 	Achieving what I set out to do <ul style="list-style-type: none"> I enjoy meeting challenges and not just as a way of getting praise. I am proud of how I've accomplished something, not just the end result. I am really pleased when I meet my own goals. 	Having own ideas <ul style="list-style-type: none"> I am able to think of ideas. I can find ways to solve problems. I am able to find new ways to do things.
Playing with what I know: <ul style="list-style-type: none"> I like acting out my experiences when I play. I like pretending objects are things that I know. I like taking on a role when I play. I like acting out my experiences with other people. 	Keep on trying <ul style="list-style-type: none"> I believe that if I keep trying or change what I'm doing, it will pay off I am able to bounce back after difficulties. I stick with an activity even when challenges arise. 	Making links <ul style="list-style-type: none"> I can develop ideas of grouping, sequencing, cause and effect. I am able to test my ideas. I make links and notice patterns in my experience. I am able to make predictions.
Willing to have a go <ul style="list-style-type: none"> I can initiate activities. I like to seek out things that will challenge me. I like to show a 'can do' attitude. I enjoy taking a risk, trying new things and learning by trial and error. 	Being involved and concentrating <ul style="list-style-type: none"> I can keep focussed on my activity for a period of time. I am able to show high levels of energy and fascination. I am not easily distracted. I am able to pay attention to details. 	Choosing ways to do things <ul style="list-style-type: none"> I am able to check how well an activity is going. I can plan, choose how to approach a task, solve a problem and reach a goal. I can change my approach or strategy when needed. I am able to review how well my approach worked.

Evidence of teaching and learning

You will be able to find evidence of the teaching and learning in the Early Years through

- Planning files
- Displays
- Tapestry – online learning journey
- Talking and playing alongside children
- Data on BromCom