



Learning Journey: Mathematics

The Early Years Foundation Stage is the bedrock of our curriculum, preparing children for the learning journey ahead. Within a nurturing and play-based EYFS environment, children will learn basic and transferable skills; absorb relevant knowledge and grow in maturity, as well as developing a thirst for learning.

Mathematics

How does maths in the EYFS prepare children for future learning?

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. Framework 2020

In planning and guiding what children learn, we reflect on the different rates at which children are developing and adjust their practice appropriately, referring to the Characteristics of Effective Teaching and Learning:

Playing and Exploring: children investigate and experience things, and 'have a go' they should not be afraid to make mistakes.

Active Learning: children concentrate and keep on trying if they encounter difficulties and enjoy their achievements for their own sake

Creating and Thinking Critically: children have and develop their own ideas, make links between ideas, and develop strategies for doing things.

Children should be provided with frequent and varied opportunities to build on their understanding using manipulatives eg. Tens frames for organising counting. Children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. EYFS Framework 2020.

The **Prime Areas of Learning** (Personal, Social and Emotional Development, Communication and Language and Physical Development) underpin and are an integral part of children's learning in all areas, including maths.

**EYFS Number (Statutory)
Early Learning Goals Number**

- ✓ Have a deep understanding of number to 10, including the composition of each number.
- ✓ Subitise (recognise quantities without counting) up to 5.
- ✓ 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

**EYFS Number - Numerical patterns (Statutory)
Early Learning Goals**

- ✓ Verbally count beyond 20, recognising the pattern of the counting system.
- ✓ Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other Quantity`.
- ✓ Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally
- ✓ Children should be encouraged to look for patterns and relationships and spot connections.

In reception we use Power Maths for planning. The lessons are always hands-on, and based on concrete, pictorial and abstract methods where possible.

Mathematic Skills

The EYFS Experience

Power Maths Lesson

Power Maths lessons feed into Year 1 perfectly as children continue to use power Maths but in a more structured way. This is a maths lesson for all the children at the same time working in their Practice Books.

Children use everyday language to talk about time to solve problems.

Children explore characteristics of everyday objects and shapes and use mathematical language to describe them.

Children recognise, create and describe patterns.

Continuous Provision

Continuous provision will encourage consolidation of concepts learnt in Power Maths lessons, as well as providing opportunities for children to demonstrate their understanding, to practise skills, to extend learning or to follow their own interests using maths in 'real-life' situations as an integral part of the EYFS day.

Explore shapes and their properties so that they can describe them in simple terms.

<p>Using quantities and objects, they add and subtract 2 single-digit numbers and count on or back to find the answer.</p> <p>Children count reliably with numbers from 1 to 20, place them in order.</p> <p>They solve problems, including doubling, halving and sharing.</p> <p>Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems</p> <p>Children will complete Power Maths Booklets as part of their continuous provision.</p> <p>Children may write directly into their books or staff may include photographic evidence within the Power Maths books to show achievement.</p>	<p>Use a range of equipment to explore capacity, weight, size and money in real-life situations (such as tape measures, balances, water toys, a till and real coins).</p> <p>Practise number facts such as number bonds and doubles to enable fast recall.</p> <p>Practise counting regular and irregular arrangements of objects accurately.</p> <p>Practise adding two numbers together and subtracting a small number from a bigger number.</p> <p>Have daily opportunities to practise their maths skills indoors and outdoors in child-led provision.</p> <p>Taught and practise writing numerals.</p> <p>Sing lots of number songs and rhymes whilst learning to count forwards and backwards.</p> <p>Play lots of games in order to practise counting and recognising numerals.</p> <p>Practise putting numbers in the correct order on a number-line.</p> <p>Take part in reasoning and problem-solving activities appropriate to their age.</p>
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Development Matters (non-statutory guidance)
Great ideas for school and home

Number

- ✓ Count objects, actions and sounds.
- ✓ Subitise.
- ✓ Link the number symbol (numeral) with its cardinal number value.
- ✓ Understand the 'one more than/one less than' relationship between consecutive numbers.

- ✓ Explore the composition of numbers to 10.
- ✓ Automatically recall number bonds for numbers 0–5 and some to 10.

Numerical Patterns

- ✓ Count beyond ten.
- ✓ Compare numbers.
- ✓ Select, rotate and manipulate shapes in order to develop spatial reasoning skills.
- ✓ Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.
- ✓ Continue, copy and create repeating patterns.
- ✓ Compare length, weight and capacity.

Parents play a vital role in children's mathematical development. Many key mathematical skills can be supported at home through everyday activities such as: telling the time, weighing for cooking, measuring for craft and DIY, using money and playing board games. Many of these skills are the "real-life" maths that we use every day, and are more effectively learned in the setting in which we use them.

Assessment: are we ready for the next step in our learning journey?

Number

- ✓ Do children have a deep understanding of number to 10, including the composition of each number?
- ✓ Can children subitise (recognise quantities without counting) up to 5?
- ✓ Can children 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?

Numerical Patterns

- ✓ Can children verbally count beyond 20, recognising the pattern of the counting system?
- ✓ Can we compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity?
- ✓ Can we explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally?

Vocabulary

Number zero number one, two, three ... to twenty and beyond teens numbers, eleven, twelve ... twenty nine how many ...? count, count (up) to, count on (from, to), count back (from, to) count in ones, twos, fives, tens is the same as more, less odd, even few pattern pair

Place value ones tens digit the same number as, as many as more, larger, bigger, greater, fewer, smaller, less fewest, smallest, least most, biggest, largest, greatest one more, ten more one less, ten less compare order size first, second, third... twentieth last, last but one before, after

Estimating guess how many ...? estimate nearly close to about the same as just over, just under too many, too few enough, not enough

Addition and Subtraction add, more, and make, sum, total altogether double one more, two more ... ten more how many more to make ...? how many more is ... than ...? how much more is ...? take away how many are left/left over? how many have gone? one less, two less, ten less ... how many fewer is ... than ...? how much less is ...?

Multiplication and Division sharing doubling halving number patterns

Fractions parts of a whole half quarter