



Educational Programme taken from the Statutory Framework for the Early Years Foundation Stage September 2021

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.



| | Number | | |
|-----------|---|--|--|
| | Cardinality and Counting | Comparison | Composition |
| Nursery | <p>Subitise regular arrangements up to 3. Orally count up to 5 and beyond. Count 1:1 for objects up to 5. Recognise and order numerals up to 5. Match quantity and numeral up to 5. Represent number with fingers and marks.</p> | <p>Solve simple given problems to 5. Compare two quantities. Notice how a quantity changes when items are added or taken away.</p> | <p>Partition a group of objects in different ways, recognising that the total is still the same. Explore the composition of numbers to 5.</p> |
| Reception | <p>Say number words in sequence beyond 10. Count 1:1 objects, actions, sounds and things that cannot be moved. Know the last number counted gives the total so far. Subitise regular arrangements to 10 and irregular to 5 Match numeral to quantity Know that the number does not change if things are rearranged (Conservation)</p> | <p>Compare collections and talk about which group has more/less. Identify groups with the same number of things. Say the number that is 1 more than/less than a given number. Explore sharing. Compare numbers that are far apart, near to and next to each other.</p> | <p>Explore the composition of numbers to 10. Automatically recall number bonds for numbers 0–5 and some to 10. Inverse operations - recognise that partitioned groups can be recombined to make the same total. Explore how a number can be partitioned into different pairs of numbers. Explore how a number can be partitioned into more than two numbers.</p> |



| | | Numerical Pattern | | |
|---------|---|--|---|----------|
| | | Pattern | Shape and Space | Measures |
| Nursery | Notice pattern. Continue an AB pattern. Copy an AB pattern. | Identify basic 2D shapes. Notice similarities in shapes. Respond to simple positional vocabulary. Experiment with shapes. Use shapes appropriately for a task. | Order and compare objects of different sizes, weight and length. Use simple time vocabulary eg. 'first', 'then'. Use a timer to experience time duration. Order events in sequence. | |
| | <p>Continue an AB/ABC pattern.</p> <p>Copy an AB/ABC pattern.</p> <p>Make their own AB/ABC pattern.</p> <p>Spot an error in an AB/ABC pattern. (^^Explore AB/ABC patterns?!?)</p> <p>Identify the unit of repeat.</p> <p>Continuing a pattern which ends mid-unit.</p> <p>Making their own ABB, ABBC patterns.</p> <p>Spotting an error in an ABB pattern.</p> <p>Record patterns they make using symbols and objects, including sound and movement patterns.</p> <p>Investigate patterns continuing indefinitely in a circle.</p> <p>Explore creating a pattern around a given space/with a fixed number of spaces.</p> <p>Spot patterns in their environment.</p> | <p>Select, rotate and manipulate shapes to develop spatial reasoning and awareness skills.</p> <p>Compose and decompose shapes to recognise shapes within shapes.</p> <p>Use positional and directional vocabulary.</p> <p>Represent shapes and positional/directional awareness in drawings and play.</p> <p>Identify similarities between shapes.</p> <p>Describe properties of shapes.</p> <p>Select 2D shapes to construct a 3D model.</p> | <p>Recognise specific attributes: length, weight and capacity and compare them.</p> <p>Have an awareness of comparison in estimating and predicting.</p> <p>Order items by length, weight and capacity.</p> <p>Explore and begin to use a variety of units to measure and compare.</p> <p>Begin to use time to sequence events.</p> <p>Begin to experience specific time durations.</p> | |