



<p><b>Educational Programme for Mathematics:</b></p> <p>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.</p>	<p><b>Number Early Learning Goal:</b></p> <ul style="list-style-type: none"> <li>• Have a deep understanding of number to 10, including the composition of each number;</li> <li>• Subitise (recognise quantities without counting) up to 5;</li> <li>• 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.</li> </ul> <p><b>Numerical Pattern Early Learning Goal:</b></p> <ul style="list-style-type: none"> <li>• Verbally count beyond 20, recognising the pattern of the counting system;</li> <li>• Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;</li> <li>• Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</li> </ul>
<p><b>Progression towards the ELG:</b></p>	<p><b>Characteristics of learning:</b></p>
	<p><b>On going focus on:</b></p> <p><b>Play and Exploring</b> Bring their own interests and fascinations into early years settings. This helps them to develop their learning Respond to new experiences that we bring to their attention.</p>



	<p><b>Active Learning</b> Participate in routines. Keep on trying when things are difficult.</p> <p><b>Creating and Thinking Critically</b> Know more, so feel confident about coming up with their own ideas. Make more links between those ideas.</p>
<p><b>By the end of the Summer Term Reception children should be able to:</b></p> <ul style="list-style-type: none"> <li>• Have a deep understanding of number to 10, including the composition of each number;</li> <li>• Subitise (recognise quantities without counting) up to 5;</li> <li>• 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.</li> <li>• Verbally count beyond 20, recognising the pattern of the counting system;</li> <li>• Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;</li> <li>• Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</li> </ul>	<p>Four guiding principles should shape practice in our setting. These are:</p> <ul style="list-style-type: none"> <li>• every child is a <b>unique child</b>, who is constantly learning and can be resilient, capable, confident and self-assured</li> <li>• children learn to be strong and independent through <b>positive relationships</b></li> <li>• children learn and develop well in <b>enabling environments with teaching and support from adults</b>, who respond to their individual interests and needs and help them to build their learning over time. Children benefit from a strong partnership between practitioners and parents and/or carers.</li> <li>• importance of <b>learning and development</b>. Children develop and learn at different rates.</li> </ul>
<p><b>By the end of the Spring Term Reception children should be able to:</b></p> <ul style="list-style-type: none"> <li>• Can count beyond ten</li> <li>• Is able to compare numbers</li> </ul>	<p><b>Playing and Exploring</b> Plan and think ahead about how they will explore or play with objects.</p> <p><b>Active Learning</b> Show goal-directed behaviour.</p>



- Understands the 'one more than/one less than' relationship between consecutive numbers  
Is able to explore the composition of numbers to 10
- Automatically recalls number bonds for numbers 0–5 and some to 10.
  
- Investigates composing and decomposing shapes and recognises a shape can have other shapes within it, just as numbers can
- Is able to continue, copy and create repeating patterns – more complex patterns
- Can compare length, weight and capacity

Begin to correct their mistakes themselves.

### **Creating and Thinking Critically**

Review their progress as they try to achieve a goal. Check how well they are doing.  
Solve real problems.  
Use pretend play to think beyond the 'here and now' and to understand another perspective.

### **By the end of the Autumn Term Reception children should be able to:**

- Counts objects, actions and sounds
- Is able to subitise (recognise how many objects there are in a small group without counting)
- Is able to link the number symbol (numeral) with its cardinal number value
  
- Can select, rotate and manipulate shapes in order to develop spatial reasoning skills
- Is able to continue, copy and create repeating patterns – ABABAB patterns
- Can compare length, weight and capacity

### **Playing and Exploring**

Make independent choices.

### **Active Learning**

Begin to predict sequences because they know routines.

### **Creating and Thinking Critically**

Sort materials  
Concentrate on achieving something that's important to them. They are increasingly able to control their attention and ignore distractions.

**Key vocabulary:**

