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| <p>Educational Programme for Mathematics:</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>Number Early Learning Goal:</p> <ul style="list-style-type: none">• 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. <p>Numerical Pattern Early Learning Goal:</p> <ul style="list-style-type: none">• 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. |
| <p>Progression towards the ELG:</p> <p>On going:</p> <p>Can talk about and explore 2D and 3D shapes (e.g. circles, rectangles, triangles and cuboids) using informal and mathematical language; 'sides', 'corners', 'straight', 'flat', 'round'</p> | <p>Characteristics of learning:</p> |
| | <p>On going focus on:</p> |



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| | <p>Play and Exploring 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>Active Learning Participate in routines. Keep on trying when things are difficult.</p> <p>Creating and Thinking Critically Know more, so feel confident about coming up with their own ideas. Make more links between those ideas.</p> |
| <p>By the end of the Summer Term Nursery children should be able to:</p> <ul style="list-style-type: none"> • Is experimenting with his/her own symbols and marks as well as numerals • Is able to solve real world mathematical problems with numbers up to 5 • Can compare quantities using language such as; 'more than', 'fewer than' • Combines shapes to make new ones; an arch, a bigger triangle etc • Talks about and identifies the patterns around him/her, e.g. stripes on clothes, designs on rugs and wallpaper. He/She uses informal language like 'pointy', 'spotty', 'blobs' etc • Is able to extend and create ABAB patterns, e.g. stick, leaf, stick, leaf • Notices and corrects an error in a repeating pattern Is beginning to describe a sequence of events, real or fictional, using words such as 'first', 'then...' | <p>Four guiding principles should shape practice in our setting. These are:</p> <ul style="list-style-type: none"> • every child is a unique child, who is constantly learning and can be resilient, capable, confident and self-assured • children learn to be strong and independent through positive relationships • children learn and develop well in enabling environments with teaching and support from adults, 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. • importance of learning and development. Children develop and learn at different rates. |



By the end of the Spring Term Nursery children should be able to:

- Knows that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle')
- Can show 'finger numbers' up to 5
- Can link numerals and amounts: e.g. showing the right number of objects to match the numeral, up to 5
- Understands position through words alone, e.g. "The bag is under the table," - with no pointing
- Can describe a familiar route
- Is able to discuss routes and locations, using words like 'in front of' and 'behind'
- Can make comparisons between objects relating to size, length, weight and capacity
- Selects shapes appropriately; flat surfaces for building, a triangular prism for a roof etc

Playing and Exploring

Guide their own understanding by referring to visual aids or by talking to themselves while playing.

Active Learning

Show goal-directed behaviour.
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.
Sort materials

By the end of the Autumn Term Nursery children should be able to:

Pre-3

- Completes inset puzzles
- Is able to compare sizes, weights etc. using gesture and language, such as; 'bigger/little/smaller', 'high/low', 'tall', 'heavy'
- Notices patterns and arranges things in patterns
- Displays fast recognition of up to 3 objects, without having to count them individually ('subitising')
- Recites numbers past 5
Can say one number for each item in order: 1,2,3,4,5

Playing and Exploring

Realise that their actions have an effect on the world, so they keep repeating them.
Make independent choices.

Active Learning

Begin to predict sequences because they know routines.
Take part in simple pretend play.

Creating and Thinking Critically

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



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| Key vocabulary: |
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