# Reception - Maths Termly Overview

| | AUTUMN | | SPRING | | SUMMER | |
|---|---|---|---|---|---|---|
| | **Wk** | | **Wk** | | **Wk** | |
| **Reception** | 1-6 | Set 1 – Mastering number | 1-6 | Set 3 – Mastering number | 1-6 | Set 5 – Mastering number |
| | 7-12 | Set 2 – Mastering number | 7-11 | Set 4 – Mastering number | 7-11 | Set 6 – Mastering number |
| | 1 day each week | Match, sort and compare | 1 day each week | Circles and triangles | 1 day each week | Mass, capacity, length and height |
| | | Patterns | | Shapes with 4 sides | | Exploring 3D shape |

# Reception - Maths Termly Overview

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| **Autumn Term Topic 1** | **Match, sort and compare** | | |
| | **Links to the Curriculum** | **Teaching Points** | **Key Vocabulary** |
| | - Compare numbers. | - Matching is a simple form of sorting and is the beginning of logical thinking. Through matching, children learn one-to-one correspondence.<br>- Matching is a simple form of sorting and is the beginning of logical thinking. Through matching, children learn one-to-one correspondence. Matching objects to pictures develops children's understanding that objects can be represented by pictures.<br>- Identifying and making sets is a precursor to counting. Children need this for the basis of the counting principles of cardinality and one-to-one correspondence.<br>- When children sort objects, they are learning that some things are alike, and some are different. Early experiences of sorting objects into groups according to their similarities helps children to learn how to categorise and is a precursor to classifying. | Same<br>Different<br>Sort |
| | **Linked Texts** | A Pair of Socks by Stuart J. Murphy<br>Seaweed Soup by Stuart J. Murphy<br>The Button Box by Margarette S. Reid<br>Beep Beep, Vroom Vroom! by Stuart J. Murphy | |

# Reception - Maths Termly Overview

| | Talk about Measure and Patterns | | |
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| | **Links to the Curriculum** | **Teaching Points** | **Key Vocabulary** |
| **Autumn Term Topic 1** | – Make comparisons between objects relating to size, length, weight and capacity.<br>– 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.<br>– Continue, copy and create repeating patterns. | - Children learn that objects can be compared and ordered by size<br>- Children are introduced to the vocabulary of mass and learn that objects can be compared and ordered by their mass. Children may be more familiar with the word 'weight'<br>- Children learn that objects can be compared and ordered by their capacity. Provide children with a wide range of opportunities to explore different containers and boxes and their capacity.<br>- Prompt children to recognise that a pattern is a repeated unit. They will explore different patterns and learn that patterns can be both visual and auditory (involving sound).<br>- Introduce children to AB patterns, which are patterns with only two parts repeating, such as red/green or dog/cat.<br>- Encourage children to make an edible repeating pattern and prompt them to describe the pattern before they eat their snack. | Big<br>Little<br>Large<br>Small<br>Weight<br>Mass<br>Heavy<br>Light |
| | **Linked Texts** | Where's My Teddy? by Jez Alborough<br>It's the Bear! by Jez Alborough<br>The Blue Balloon by Mick Inkpen<br>Dear Zoo by Rod Campbell<br>My First Book of Patterns by Bobby and June George<br>We're Going on a Bear Hunt by Michael Rosen<br>A-B-A-B-A – A Book of Pattern Play by Brian P. Cleary | |

# Reception - Maths Termly Overview

| | Circles and Triangles | | |
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| **Spring Term Topic 1** | **Links to the Curriculum** | **Teaching Points** | **Key Vocabulary** |
| | – Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language.<br>- Describe a familiar route.<br>- Discuss routes and locations, using words like 'in front of' and 'behind'. | - Children notice circles and triangles all around them and begin to describe their properties. Children may use informal language such as 'pointy' or 'sharp' to describe what they notice. They should also be introduced to mathematical language for describing the properties of circles and triangles, such as 'sides ', 'straight', 'corners ' and 'round'<br>- Children use what they have learned about the properties of circles and triangles to support them to compare shapes<br>- Children build on the learning from the two previous steps and progress onto noticing shapes in the environment<br>- Children hear and begin to use positional language such as ' in', 'on', 'under ', 'over ', 'beside', 'between', 'in front of', 'around', 'through' and 'behind' to describe how items are positioned in relation to other items. Model using these words in play. | Sides<br>Straight<br>Corners<br>Round<br>In<br>On<br>Under<br>Over<br>Beside<br>Between<br>In front of<br>Around<br>Through<br>behind |
| | **Linked Texts** | Circle, Triangle, Elephant! A Book of Shapes and Surprises by Kenji Oikawa and Mayuko Takeuchi<br>Triangle by Mac Barnett and Jon Klassen<br>Shapes, Shapes, Shapes by Tana Hoban<br>We're Going on a Bear Hunt by Michael Rosen<br>Rosie's Walk by Pat Hutchins | |

# Reception - Maths Termly Overview

| | Shapes with Four Sides | | |
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| | **Links to the Curriculum** | **Teaching Points** | **Key Vocabulary** |
| **Spring Term Topic 2** | − 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'.<br>− Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.<br>− Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...' | - Children notice squares and rectangles all around them and begin to describe their properties. They should be introduced to mathematical language for describing the properties of squares and rectangles, such as 'sides', 'straight' and 'corners'.<br>- Children build on their prior learning on properties of shapes by investigating how shapes can be combined to make new shapes.<br>- Children use their knowledge from the previous two small steps to identify squares and rectangles in the environment.<br>- Children will begin to distinguish and talk about the difference between the key events in their daily routine. They will recognise what occurs during the day compared to at night. They will use language such as 'first', 'then', 'after', 'before', 'day', 'night', 'morning', 'afternoon', 'today' and 'tomorrow' to describe different events. | Sides<br>Straight<br>Corners<br>First<br>Then<br>After<br>Before<br>Day<br>Night<br>Morning<br>Afternoon<br>Today<br>Tomorrow |
| | **Linked Texts** | Bear in a Square by Stella Blackstone<br>Square by Mac Barnett and Jon Klassen<br>Shapes, Shapes, Shapes by Tana Hoban<br>Night Monkey, Day Monkey by Julia Donaldson<br>The Fox in the Dark by Alison Green | |

# Reception - Maths Termly Overview

| | Mass, Capacity, Length, Height and Time | | |
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| | **Links to the Curriculum** | **Teaching Points** | **Key Vocabulary** |
| **Summer Term Topic 1** | – Compare length, weight and capacity. | - Children build on their learning of simple comparisons from the autumn term to now make more precise comparisons using different units. Children may still be more familiar with the word 'weight' and there is no harm in using this interchangeably with the word 'mass'.<br>- Children will further explore mass and progress to discovering how to find a balance. Prompt children to recognise that the scales are balanced when the objects on each side have the same mass.<br>- Children build on their understanding of 'full' and 'empty' to further investigate different capacities and how they relate to each other. They will explore how non-standard units can be used to measure capacity.<br>- Children are encouraged to explore objects and begin to use the language of length to describe them. Begin this process by exploring and describing two objects so that children can see 'long' and 'not long', and 'short' and 'not short'.<br>- Encourage children to use more specific vocabulary to describe an object, such as 'longer than' or 'shorter than' something else. Encourage children to make indirect comparisons using nonstandard objects, such as blocks or cubes, to measure items, for example, "The sand tray is four blocks long."<br>- Support children to understand that height is a type of length. Children should be introduced to the language of both 'short' objects and 'tall' objects through experiences.<br>- Children move on to using the language 'tallest', 'shortest', 'taller' and 'shorter' to make comparisons. Demonstrate how objects and children themselves can be ordered according to height.<br>-Support children by giving them reference points, such as photographs of events on a journey wall or in a book, so that they can recall past experiences and notice seasonal change. Discuss what is happening tomorrow, next week or at the weekend to support children to talk about the more immediate future.<br>- Children are encouraged to use simple strategies to discuss time and then progress to ordering and sequencing simple events. Use calendars to mark off the days leading up to special events to help to show the passing of time. | Mass<br>Short<br>Not short<br>Full<br>Empty<br>Longer than<br>Shorter than<br>Tall<br>Tallest<br>Shortest<br>Shorter |
| | **Linked Texts** | Who Sank the Boat? by Pamela Allen<br>Balancing Act by Ellen Stoll Walsh<br>A Beach for Albert by Eleanor May<br>Superworm by Julia Donaldson<br>Actual Size by Steve Jenkins<br>The Giraffe Who Got in a Knot by Paul Geraghty and John Bush | |

# Reception - Maths Termly Overview

| | Exploring 3D Shape | | |
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| | **Links to the Curriculum** | **Teaching Points** | **Key Vocabulary** |
| **Summer Term Topic 2** | − Select, rotate and manipulate shapes to develop spatial reasoning skills.<br>− Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.<br>− 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'.<br>− Continue, copy and create repeating patterns.<br>− Notice and correct an error in a repeating pattern. | - Children will focus on the concept of 3-D shapes and their properties<br>- Children extend their knowledge of recognising and naming 3-D shapes to finding and identifying the 2-D shapes on the flat faces of 3-D shapes.<br>- Children are guided to further expand their knowledge of the properties of 3-D shapes.<br>- Children build on their experiences of 2-D shapes in the environment by now looking for representations of 3-D shapes.<br>- Children build on their knowledge of simple AB patterns from the autumn term. They are introduced to more complex patterns such as ABC and ABCD, where all the elements are different. This can then progress to AABB, AAB and ABB patterns.<br>- Children move on from exploring the features of more complex patterns to being able to competently copy and continue them. | 2D<br>3D<br>Sides<br>Corners<br>Straight<br>Flat<br>round |
| | **Linked Texts** | Circle! Sphere! by Grace Lin<br>Changes, Changes by Pat Hutchins<br>Naughty Bus by Jan Oke<br>Rapunzel<br>Kitten Castle by Ellen Weiss and Mel Friedman<br>Shapes, Shapes, Shapes by Tana Hoban<br>Pattern Fish by Trudy Harris<br>Pattern Bugs by Trudy Harris<br>Busy, Busy, Busy by Haneul Ddang<br>The Leopard's Drum by Jessica Souhami<br>Jamil's Clever Cat by Fiona French with Dick Newby | |

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