



These statements show the typical level of development in Mathematics for Reception children. The statements are benchmarked to enable teachers to assess the rate of learning and development and to plan next steps. They will also enable staff to track children's progress towards the end of year requirements. Shape, Space and Measure is included as children's development of space, measures and spatial awareness contributes significantly to mathematical development and learning. Throughout the year children will develop their learning through a mix of child-led and directed play activities.

Mathematics	
Number and Numerical Patterns	
<b>Number and Place Value (December March)</b> <ul style="list-style-type: none"><li>I can count up to three or four objects by saying one number name for each item.</li><li>I can count objects to 10 and begin to count beyond 10.</li><li>I can count out up to six objects from a larger group.</li><li>I can select the correct numeral to represent 1 to 5, then 1 to 10 objects. Then 1-20.</li><li>I can begin to use 'teens' to count beyond 10.</li><li>I can count an irregular arrangement of up to ten objects.</li><li>I can find one more or one less from a group of up to five objects, then ten objects.</li><li>I can estimate how many objects I can see and check by counting them.</li><li>I can use the language of 'more' and 'fewer' to compare two sets of objects.</li><li>I fully understand 5, 6, 7 etc and all manipulations of the number.</li><li>Count objects, actions and sounds.</li><li>Subitise.</li><li>Link the number symbol (numeral) with its cardinal number value.</li><li>Count beyond ten.</li><li>Compare numbers.</li><li>Understand the 'one more than/one less than' relationship between consecutive numbers.</li><li>Continue, copy and create repeating patterns.</li></ul>	<b>Calculation</b> <ul style="list-style-type: none"><li>I can recognise some numerals of personal significance.</li><li>I can find the total number of items in two groups by counting all of them and starting to use 'counting on'.</li><li>I can begin to use the vocabulary involved in adding and subtracting including counting on and back.</li><li>I understand addition up to 5 using all combinations. Then 6, 7, 8, 9, 10.</li><li>Explore the composition of numbers to 10.</li><li>Automatically recall number bonds for numbers 0-10.</li></ul> <b>Fractions</b> <ul style="list-style-type: none"><li>I can show some understanding of doubling and halving in familiar contexts.</li></ul> <b>ELG: Number</b> <p>Children at the expected level of development will:</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> <b>ELG: Numerical Patterns</b> <p>Children at the expected level of development will:</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>



## Mathematics

### Shape, Space and Measure

#### Measurement (**December** **March**)

- I can talk about the routine of the day and use language like before, after.
- I can use comparative language like taller, shorter, the same.
- I can experiment with length, height, capacity and use my findings to order and group items.
- I can identify money and I can start to use money in my play.
- I can recall routines and start to relate them to the time on the clock.
- *Compare length, weight and capacity.*

#### Geometry – properties of shapes

- I can start to identify shapes in the environment.
- I can start to find appropriate shapes for certain tasks.
- I can ask questions about their observations of differences and similarities.
- I can recall names for 2D and 3D shapes and I can use some of the terms to describe their properties.
- I can order and sort according to simple properties.
- *Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.*

#### Geometry – position and direction

- I can start to make more meaningful pictures, patterns and arrangements with shapes.
- I can notice similarities, differences, patterns and changes.
- I can use the language of direction when programming toys
- *Select, rotate and manipulate shapes in order to develop spatial reasoning skills.*



# RECEPTION LONG TERM OVERVIEW FOR MATHEMATICS



MEDIUM TERM PLAN				AUTUMN TERM						RECEPTION		
WEEK 1	WEEK 2	WEEK 3		WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12
<p>Opportunities for settling in, introducing the areas of provision and getting to know the children.</p> <p>Key times of day, class routines.</p> <p>Exploring the continuous provision inside and out.</p> <p>Where do things belong?</p> <p>Positional Language</p> <p>Baseline Assessment</p>				<b>NUMBER /NUMERICAL PATTERNS</b>			<b>MEASURE, SHAPE AND SPACIAL THINKING</b>					
				<ul style="list-style-type: none"> <li>-Counting Rhymes and Songs</li> <li>-Count objects, actions and sounds.</li> <li>-Classifying objects based on one attribute.</li> <li>-Matching equal and unequal sets.</li> <li>-Comparing objects and sets.</li> <li>-Subitizing.</li> <li>-Ordering objects and sets.</li> <li>-Number recognition</li> </ul>			<ul style="list-style-type: none"> <li>-Link numeral with its cardinal number value. 1 - 3</li> <li>-Count and represent the numbers 1 – 3.</li> <li>-Estimate and check by counting.</li> <li>-Recognise numbers in the environment. 1 – 3.</li> <li>-Explore the composition of numbers to 3</li> </ul>			<ul style="list-style-type: none"> <li>-Count up to 5 objects</li> <li>-Recognise numbers to 5</li> <li>-Order numbers 1 – 5</li> <li>-Conservation of numbers within 5.</li> <li>-Understand the 'one more than/one less than' relationship between consecutive numbers</li> </ul>		
				<ul style="list-style-type: none"> <li>-Continue, copy and create repeating patterns using colour and size.</li> <li>-Compare length, weight and capacity.</li> </ul>			<ul style="list-style-type: none"> <li>-Describe and sort 2D shapes (circles and triangles)</li> <li>-Select, rotate and manipulate shapes to develop spatial reasoning skills.</li> <li>-Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.</li> <li>-Describe position using positional language.</li> </ul>			<ul style="list-style-type: none"> <li>-Describe and sort 2D shapes (with 4 sides)</li> <li>-Days of the week</li> <li>-Seasons</li> <li>-Sequence daily events.</li> </ul>		

The 'Characteristics of Effective Learning, (especially the 'creative and thinking critically strand'), is inherently mathematical. This includes problem-setting and solving, testing out ideas, making predictions, noticing patterns, groups, sequences, cause and effect. These, along with 'playing and exploring' and 'active learning' support children's flexible thinking and the ability to move from the concrete to the abstract and internalise and embed learning. The Characteristics of Effective Learning will be observed and developed through quality adult interaction and shared sustained thinking within continuous provision and child-led play.



# RECEPTION LONG TERM OVERVIEW FOR MATHEMATICS



MEDIUM TERM PLAN				SPRING TERM						RECEPTION		
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12
NUMBER /NUMERICAL PATTERNS	<ul style="list-style-type: none"> <li>-Count objects, actions and sounds up to 10</li> <li>-Introduce the concept of zero.</li> <li>-Subitize (up to 5)</li> <li>- Link the number symbol (numeral) with its cardinal number value.</li> <li>-Compare numbers to 5</li> <li>-Explore the composition of numbers to 5</li> </ul>			<ul style="list-style-type: none"> <li>-Count objects, actions and sounds up to 10</li> <li>-Subitize</li> <li>- Link the number symbol (numeral) with its cardinal number value (6, 7, 8)</li> <li>-Compare numbers to 8</li> <li>-Explore the composition of numbers to 6, 7, 8.</li> <li>-Understand the 'one more than/one less than' relationship between consecutive numbers.</li> <li>-Understand 'pairs'</li> <li>-Simple addition by combining to groups.</li> </ul>			<ul style="list-style-type: none"> <li>-Count objects, actions and sounds up to 10</li> <li>-Subitize</li> <li>- Link the number symbol (numeral) with its cardinal number value (9 and 10)</li> <li>-Compare numbers to 10</li> <li>Use vocabulary: 'more than', 'less than', 'fewer', 'the same as', 'equal to'. Encourage children to use these words as well.</li> <li>-Explore the composition of numbers to 9 and 10.</li> </ul>			<ul style="list-style-type: none"> <li>-Count objects, actions and sounds up to 10</li> <li>- Link the number symbol (numeral) with its cardinal number value (up to 10)</li> <li>-Understand the 'one more than/one less than' relationship between consecutive numbers.</li> <li>-Count and share in equal groups.</li> <li>-Explore doubles of numbers up to 5.</li> </ul>		
MEASURE, SHAPE AND SPACIAL THINKING	<ul style="list-style-type: none"> <li>-Compare mass by holding items.</li> <li>-Compare mass using balances.</li> <li>-Use vocabulary of mass (heavy, heavier, heaviest, light, lighter, lightest)</li> <li>-Compare capacity.</li> <li>-Understand full, empty, half-full, nearly full/empty.</li> <li>-Compare directly by pouring from one container to another.</li> <li>-Compare by counting how many smaller containers fill the larger.</li> </ul>			<ul style="list-style-type: none"> <li>-Compare length and height of objects.</li> <li>-Use correct vocabulary (eg, 'taller' for height and 'longer' for length)</li> <li>-Use objects to measure and compare length and height (eg how many blocks tall?)</li> <li>-Describe when events happen using correct vocabulary eg, now, next, then, before, after.</li> <li>-Use 'yesterday, today, tomorrow' to describe when events happen.</li> <li>-Use different methods of recording time, eg. Sand timer or stop-watch.</li> </ul>			<ul style="list-style-type: none"> <li>-Compose and decompose shapes so that children recognise a shape can have other shapes within it.</li> <li>-Use 3D shapes to build and use in play.</li> <li>-Sort 3D shapes according to properties.</li> <li>-Use 3D shapes appropriately</li> <li>-Begin to name some 3D shapes.</li> </ul>			<ul style="list-style-type: none"> <li>-Continue, copy and create repeating patterns.</li> <li>-Explore patterns in the environment and in their own creations.</li> </ul>		

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# RECEPTION LONG TERM OVERVIEW FOR MATHEMATICS



MEDIUM TERM PLAN				SUMMER TERM						RECEPTION		
	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10	WEEK 11	WEEK 12
NUMBER /NUMERICAL PATTERNS	<ul style="list-style-type: none"> <li>-count beyond 10 using rhymes.</li> <li>-count objects beyond 10.</li> <li>-build and identify numbers to 20 using a range of practical resources eg. 10 frames, numicon</li> <li>-Count on and back from different starting points.</li> <li>-order a sequence of numbers.</li> <li>-investigate 100 using sets of 10.</li> </ul>			<ul style="list-style-type: none"> <li>-Understand the quantity of a group can be changed by adding more.</li> <li>-Use 'first, then, now' to describe addition.</li> <li>-Understand the quantity of a group can be changed by taking away.</li> <li>-Encourage children to illustrate number stories using 10 frames, numberlines and fingers.</li> <li>-Use rhymes/songs to help children understand addition/subtraction.</li> </ul>			<ul style="list-style-type: none"> <li>-Understand that 'double' means 'twice as many'</li> <li>-Encourage children to explore and investigate 'doubling' and 'halving'</li> <li>-To recognise and make 'equal groups'.</li> <li>-Be able to share objects into equal groups.</li> <li>-Solve problems involving sharing.</li> <li>-Understand that some quantities will not share equally in two.</li> <li>-Explore 'odd' and 'even' using different quantities of objects.</li> </ul>			<ul style="list-style-type: none"> <li>-Encourage children to engage in problem-solving and critical thinking (linked to stories or play-based activities).</li> <li>-Encourage children to review and discuss their strategies.</li> <li>-Explore relationships between numbers and shapes.</li> <li>-Describe and continue more challenging patterns.</li> </ul>		
MEASURE, SHAPE AND SPACIAL THINKING	<ul style="list-style-type: none"> <li>-Select and rotate shapes to fit a space (more challenging jigsaws)</li> <li>-Match arrangements of shapes and use positional language to describe where shapes are in relation to each other.</li> <li>-copy and create pictures using shapes.</li> </ul>			<ul style="list-style-type: none"> <li>-Understand shapes can be combined and separated to make new shapes.</li> <li>-Explore arrangements of shapes using tangrams.</li> </ul>			<ul style="list-style-type: none"> <li>-Use positional language to describe where objects are in relation to each other.</li> <li>-Encourage children to replicate simple models/constructions.</li> <li>-Recreate places they have been or seen in stories using loose pieces (simple maps)</li> <li>-Follow instructions to create models/pictures.</li> </ul>			<ul style="list-style-type: none"> <li>Mapping</li> <li>-Provide opportunities to observe and discuss simple maps.</li> <li>-Create own maps to represent familiar places.</li> </ul>		

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