

Maths at Springfield

Year	Autumn	Spring	Summer
Nursery	<p>Counting and Cardinality: Develop a fast recognition of up to 3 objects (without having to count them individually-subitise); recite number names in sequence past 5; select a small number of objects from a group.</p> <p>Comparison: Notice similarities and differences within collections; understand and respond to the language of 'lots' and 'more' in the context of comparing groups or collections; to make comparison between quantities and notice/describe changes in quantity using 'more', 'less', 'fewer' etc.</p> <p>Shape and space: Begin to categorise objects according to properties e.g. shape and colour.</p> <p>Measure: Begin to categorise objects according to size.</p> <p>Pattern: Begin to understand that things might happen now or at another time (routine).</p>	<p>Counting and Cardinality: One to one correspondence within 5; matching numeral and quantity within 5.</p> <p>Comparison: Continue to compare quantities of groups, including describing when groups are the same/equal; know that a group of things changes in quantity when something is added or taken away.</p> <p>Composition: To know sets can be changed or arranged differently by adding or taking away (mostly seen in context of number songs).</p> <p>Shape and space: To take an interest in shapes in the environment; to talk about and explore 2D and 3D shapes, extending onto talking about sides, corners, flat, round etc.</p> <p>Measure: Make comparisons between objects relating to size. Make comparisons between objects relating to weight.</p> <p>Pattern: Extend, continue and create ABAB patterns.</p>	<p>Counting and Cardinality: Show finger numbers up to 5; count objects in a line within 5; cardinality of number secure within 5; experiment with representing quantity and number through symbol and numerals.</p> <p>Composition: Solve real mathematical problems with numbers up to 5.</p> <p>Shape and space: Understand positional language words; describe a familiar route using positional language; select appropriate shapes when building; combine shapes to make new ones.</p> <p>Measure: Make comparisons between objects relating to length; make comparisons between objects relating to capacity.</p> <p>Pattern: Anticipate meal times and talk about past and future; begin to describe a sequence of real or fictional events.</p>
Reception	<p>Counting and Cardinality: Subitise to 5; count objects, actions and sounds using 1:1 correspondence with secure understanding of cardinality to 10; count out objects from a larger group; count forwards and backwards within 10; show finger numbers to 10; recognise numerals to 10, link numeral and quantity; know that a quantity does not change when rearranged (order irrelevance principle). Through all of the above, children gain a strong number sense within 10 and secure the 5 principles of counting; stable order, 1:1 correspondence, cardinality, abstract principle, order irrelevance principle.</p> <p>Comparison: Compare different collections of amounts using language such as more/fewer; compare collections of equal amounts.</p> <p>Space and shape: Develop spatial awareness by experiencing different viewpoints; respond and use language of position and direction, use positional language relevant to the viewpoint; develop shape awareness through construction (including selecting, manipulating & rotating 2D+3D shapes).</p> <p>Measure: Recognise which attributes apply to which objects e.g. sticks are long and adults are tall; compare 2 items by size and find out which is bigger and smaller; compare 2 items by length or height.</p> <p>Pattern: Continue, copy and create an AB pattern; notice and correct an error in an AB pattern and fix it; identify the unit of repeat in an AB pattern. continue an AB pattern; continue a pattern which ends mid unit; create an ABB, ABBC pattern; spot an error in an ABB pattern.</p>	<p>Counting and Cardinality: Count forwards and backwards beyond 20 recognising patterns of the counting system; estimate how many objects and check by counting; explore a range of marks to represent quantity and numeral.</p> <p>Comparison: Use reasoning to compare numbers and quantities; know the 'one more/one less' relationship between consecutive numbers within 10.</p> <p>Composition: Explore the composition of numbers 0-5. Explore the composition of numbers 6-10, record compositions of number stories using pictures, symbols and numbers.</p> <p>Space and shape: Represent spatial relationships e.g. maps; identify similarities between shapes.</p> <p>Measure: Compare items by capacity and describe which holds to most and least; compare 2 items by weight and find out which is heavier and lighter; show an awareness of comparison in estimating and testing predictions around measure; indirectly compare (problem solving) e.g. putting all the heavy items into a shopping bag first.</p> <p>Pattern: continue an ABC pattern; continue a pattern which ends mid unit; create an ABB, ABBC pattern; spot an error in an ABB pattern; record a pattern and explain the sequence; generalise structures to another context or mode.</p>	<p>Comparison: Explore how quantities can be distributed equally (within 10); compare quantities up to 10 using language 'more than', 'greater than', 'less than', 'fewer', 'same as', 'equal to'.</p> <p>Composition: Explore and represent odd and even number patterns within 10; explore and represent double facts within 10; automatic recall of number bonds including subtraction facts within 5; automatic recall of some number bonds within 10 including double facts; begin to explore and work out problems including + or -.</p> <p>Space and shape: Show an awareness of the properties of shape; describe the properties of shape; compose and decompose shapes so as to understand shapes within shapes; use own ideas to make models, solve problems and visualise what they will build.</p> <p>Measure: Recognise the relationship between the size and the number of units when measuring; begin to use units to compare things; begin to use time to sequence events including positional language and relational terms; begin to experience specific time durations in play e.g. timers and stopwatches.</p> <p>Pattern: Make a pattern which repeats around a circle; make a pattern around a border with a fixed number of spaces; identify patterns around us.</p>

1	<p>Previous Reception experiences and counting within 100</p> <p>Comparison of quantities and part-whole relationships</p> <p>Numbers 0 to 5 including measure</p> <p>Geometry: recognise, compose, decompose and manipulate 2D and 3D shapes</p>	<p>Geometry: recognise, compose, decompose and manipulate 2D and 3D shapes</p> <p>Numbers 0 to 10 including measure</p> <p>Additive structures</p> <p>Addition and subtraction facts within 10</p>	<p>Numbers 0 to 20</p> <p>Unitising and coin recognition (money)</p> <p>Geometry: position and direction</p> <p>Time</p> <p>Fractions</p>
2	<p>Numbers 10 to 100</p> <p>Calculations within 20</p> <p>Fluently add and subtract within 10</p> <p>Addition and subtraction of two-digit numbers (1)</p>	<p>Introduction to multiplication</p> <p>Introduction to division structures</p> <p>Geometry</p> <p>Addition and subtraction of two-digit numbers (2)</p>	<p>Money</p> <p>Fractions</p> <p>Time</p> <p>Geometry: position and Direction</p> <p>Multiplication and division – doubling, halving, quotitive and partitive division</p> <p>Sense of measure – capacity, volume, mass</p> <p>Statistics</p>
3	<p>Adding and subtracting across 10</p> <p>Numbers to 1000</p> <p>Measure (length)</p>	<p>Geometry: angles</p> <p>Manipulating the additive relationship and securing mental calculation</p> <p>Column addition</p> <p>2, 4, 8 times tables</p> <p>Column subtraction</p>	<p>Unit fractions</p> <p>Non-unit fractions</p> <p>Geometry: parallel and perpendicular sides in polygons</p> <p>Time</p> <p>Statistics</p> <p>Measure</p>
4	<p>Review of column addition and subtraction</p> <p>Numbers to 10,000</p> <p>Measure: perimeter</p> <p>3, 6, 9 times tables</p>	<p>3, 6, 9 times tables</p> <p>7 times table and patterns</p> <p>Understanding and manipulating multiplicative relationships</p> <p>Geometry: coordinates</p>	<p>Review of fractions</p> <p>Fractions greater than 1</p> <p>Geometry: symmetry in 2D shapes</p> <p>Time</p> <p>Division with remainders</p> <p>Statistics</p> <p>Geometry: position and direction</p>
5	<p>Decimal Fractions</p> <p>Money</p> <p>Negative numbers</p> <p>Short multiplication and short division</p>	<p>Measure: area and scaling</p> <p>Calculating with decimal fractions</p> <p>Factors, multiples and primes</p>	<p>Fractions</p> <p>Measure: converting units</p> <p>Geometry: angles and position and direction</p> <p>Statistics</p>
6	<p>Calculating using knowledge of structures (1)</p> <p>Multiples of 1,000</p> <p>Multiples of 10,000,000</p> <p>Geometry: draw, compose and decompose shapes</p>	<p>Multiplication and division</p> <p>Area, perimeter</p> <p>Geometry: position and direction</p> <p>Fractions and percentages</p>	<p>Statistics</p> <p>Ratio and proportion</p> <p>Calculating using knowledge of structures (2)</p> <p>Algebra: solving problems with two unknowns</p> <p>Order of operations</p> <p>Mean average</p> <p>Measure</p>