



'Achieving Together'

# Skills & Knowledge Progression: Mathematics

Year group	Cardinality	Comparison	Composition	Pattern	Shape and Space	Measures
Nursery (F1)	<ul style="list-style-type: none"> <li>• Say number words in sequence to 5, then 10.</li> <li>• Say one number name for each item when counting (1:1 correspondence) up to 5, then beyond.</li> <li>• Show finger numbers up to 5.</li> <li>• Know that the last number counted gives the total (cardinal principle)</li> <li>• Develop fast recognition of up to 3 objects (subitising)</li> <li>• Match numeral to quantity.</li> <li>• Begin to know that the number does not change if things are rearranged.</li> <li>• Solve real world mathematical problems with numbers up to 5.</li> <li>• Experiment with their own symbols and marks as well as numerals.</li> <li>• Understand and use a five frame.</li> </ul>	<ul style="list-style-type: none"> <li>• Compare quantities using the vocabulary of 'more than' and 'fewer than'.</li> <li>• Identify groups with the same number of objects (vocabulary of equal).</li> <li>• Solve real world mathematical problems with numbers up to 5.</li> </ul>	<ul style="list-style-type: none"> <li>• Begin to identify smaller numbers within a number (part-whole), using concrete strategies.</li> <li>• Solve real world mathematical problems with numbers up to 5.</li> </ul>	<ul style="list-style-type: none"> <li>• Talk about and identify patterns around them e.g., stripes on clothes, using informal language such as pointy, spotty.</li> <li>• Recognise and continue an AB pattern.</li> <li>• Create an AB pattern.</li> <li>• Spot an error in an AB pattern.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop spatial awareness through using wheeled toys, construction activities, jigsaw puzzles and building with small world toys.</li> <li>• Develop positional and directional language e.g., in, down, under, across.</li> <li>• Understand and use prepositions of in front' and 'behind'.</li> <li>• Talk about and explore 2D and 3D shapes using informal, and mathematical language.</li> <li>• Select shapes appropriately during play e.g., construction activities.</li> <li>• Begin to identify similarities between shapes and everyday objects.</li> </ul>	<ul style="list-style-type: none"> <li>• Make comparisons between objects relating to size, weight, length and capacity.</li> <li>• Begin to make comparisons between continuous quantities i.e., heavy, heavier, heaviest.</li> <li>• Begin to recognise the relationship between size and the number of units.</li> <li>• Begin to measure using non-standard units.</li> <li>• Begin to describe a sequence using vocabulary such as 'first, then, before, after.'</li> <li>• Know the days of the week.</li> </ul>



# BIDSTON AVENUE

## Reception (F2)

- Count forwards and backwards.
- Link the numeral with its cardinal number value.
- Visualise and understand the concept of zero.
- Count beyond 10, then verbally beyond 20 (recognising the pattern of the counting system).
- Subitise up to 5.
- Understand and use a five frame, then ten frames.
- Use own marks, symbols and numerals to journal number problems.

- Understand the 1 more than/1 less than relationship between consecutive numbers.
- 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 have a deep understanding of the composition of numbers to 10.
- Partition several items into 2 groups and recognise that those groups can be recombined to give the same total.
- Automatically recall number bonds for numbers to 5 (including subtraction facts) and some to 10 (including double facts).
- Explore how quantities can be distributed equally i.e., partitioning into more than 2 groups.

- Explore and represent patterns with numbers up to 10, including evens and odds and double facts.
- Identify the unit of repeat in a pattern.
- Identify abstract and repeating patterns.
- Continue, copy and create repeating patterns (ABC, ABB, ABBC, AABB).
- Continue a pattern that ends mid unit.
- Spot an error in a repeating pattern (ABB)
- Symbolise the unit structure of a pattern by recording it i.e., drawing it.
- Extend a repeating pattern in different arrangements e.g., circle, zigzag, fixed shape border.

- Select, rotate and manipulate shapes to develop spatial reasoning skills.
- Compose and decompose shapes; learning to identify that a shape can have shapes within it.
- Use mathematical language to describe the properties of 2D and 3D shapes.
- Understand and use a variety of prepositions.
- Locate and navigate items using positional language.
- Represent spatial relationships through simple drawings e.g., drawing a simple map, plan or route.
- Identify similarities between shapes and everyday objects.
- Develop an awareness of relationships between shapes i.e., choosing specific shapes to make pictures or models.

- Compare quantities using the vocabulary of 'more than' and 'fewer than'.
- Recognise the relationship between size and the number of units.
- Compare length, weight and capacity.
- Begin to use units to compare and measure e.g., interlocking cubes, rulers.
- Order by time.
- Know the days of the week and their order.
- Begin to experience specific time durations.
- Read and make o'clock and half past times.
- Begin to estimate and predict.

**For progression maps for Years 1 to 6, please see the Maths No Problem pdfs below.**



y1-mathsnoproblems y2-mathsnoproblems y3-mathsnoproblems y4-mathsnoproblems y5-mathsnoproblems y6-mathsnoproblems  
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