

Junior Kindergarten

Maths in the Primary Years Programme (PYP) in the Kindergarten is taught through inquiry-based, hands-on learning experiences. Young learners engage with mathematical concepts in a playful, real-world context that fosters exploration and curiosity. The focus is on developing a deep understanding of foundational concepts like number sense, patterns, shapes, and measurement. Teachers guide students to make connections between math and their everyday experiences, encouraging problem-solving, reasoning, and collaboration. This approach supports the development of critical thinking skills while nurturing a love for learning and discovery in mathematics.

Maths is divided into five interrelated strands which are taught progressively.

- ☐ **Data Handling:** Collecting, organising, and interpreting data, including graphing and statistics.
- ☐ **Measurement:** Exploring concepts of time, length, mass, capacity, and volume.
- ☐ **Shape and Space:** Investigating geometry, shapes, spatial reasoning, and positions.
- ☐ **Pattern and Function:** Recognising and describing patterns and relationships, including early algebraic thinking.
- ☐ **Number:** Understanding numbers, operations, and their relationships.

Data Handling

Focus	Learning Outcomes
Graphs - bar graphs, pictogrammes	I understand objects can be described and sorted into sets by their properties I can create living graphs using real objects and people
Sort objects and events by attributes	I understand objects can be described and sorted into sets by their properties

Sort and label real objects by attributes	I can sort and label real objects
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Measurement

Focus	Learning Outcomes
Time - days of the week, daily routines	I can identify, describe and sequence events in my daily routine, for example, before, after, bedtime, storytime, today, tomorrow I can recall the days of the week by name
Length and height - non-standard measurements	I can compare and describe things by their length I can use non-standard units of measurement to explore length and height
Volume and capacity - non-standard measures	I can compare and describe things by their capacity I can use non-standard units of measurement to explore capacity
Using mathematical language related to measurement	I can compare and describe things by their weight, length, height, volume, temperature e.g. heavier, lighter, hot, cold, longer, shorter

Shape and Space

Focus	Learning Outcomes
2D shapes	I can name all common 2D shapes I can see that 2D shapes have curved or straight edges I can count the corners of some 2D shapes

	I can describe common 2D shapes using mathematical language e.g. corners, curved, and straight and long and short
3D shapes	I can name some common 3D shapes I am beginning to understand that 3D shapes have curved and straight edges I am beginning to understand that some 3D shapes have corners I am beginning to sort common 3D shapes I am beginning to describe some 3D shapes using mathematical language e.g. corners, sides, curved and straight
Positional language	I can use language to describe position and direction e.g. inside, outside, above, below and their position next to, behind, in front of, up, down

Pattern and Function

Focus	Learning Outcomes
Patterns - ABAB	I can create a pattern for example AB, AB

Number

Focus	Learning Outcomes
Numbers to 20 - one-to-one correspondence	I can count objects up to 20 I can match a number of objects to the correct numeral
Place value - number	I can demonstrate that the total number of objects does not change if it is rearranged, covered up or

conservation	hidden
Place value - subitising	I can subitise numbers to ten I can compare different numbers objects in a group using subitising
Place value - comparing numbers	I can use the language of mathematics to compare quantities in real-life situations, for example, more, less, greater than I can use ordinal numbers first, second.....
Addition	I can add together numbers to make a new total
Use simple fraction names in real-life situations	I understand two halves make a whole one I can divide objects into halves

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