

Pre-Kindergarten Mathematics Curriculum

Unit of Study: Numbers and Operations

Curriculum Standards	Learner Outcomes
Understands numbers, ways of representing numbers, relationships among numbers, and numbers systems	<ul style="list-style-type: none">• Arranges sets of concrete objects in one-to-one correspondence.• Counts by ones to 10 or higher.• Counts concrete objects to five or higher.• Begins to compare the numbers of concrete objects using language.• Begins to name “how many” are in a group of up to three (or more) objects without counting (e.g., recognizing two or three crayons in a box).• Begins to recognize and describe part of a whole with real objects (e.g., an orange).• Begins to identify first and last in a series.• Can join two sets together.• Can recognize and use the addition sign.• Can compute pictorial addition sets 1 to 10.

Unit of Study: Statistics and Probability

Curriculum Standards	Learner Outcomes
Select and use appropriate statistical methods to analyze data	<ul style="list-style-type: none">• Matches objects that are alike.• Describes similarities and differences between objects.• Sorts objects into groups by an attribute and begins to explain how the grouping was done.• Begins to understand and participate in creating pictorial graphs.

Unit of Study: Algebra

Curriculum Standards	Learner Outcomes
Understands patterns, relations, and functions	<ul style="list-style-type: none">• Imitates pattern sounds and physical movements (e.g., clap, stomp, clap, stomp...).• Recognizes and reproduces simple patterns of concrete objects (e.g., a string of beads that are yellow, blue, yellow, blue).• Begins to recognize patterns in their environment (e.g., day follows night, repeated phrases in storybooks, patterns in carpeting or clothing).• Begins to predict what comes next when patterns are extended.

Unit of Study: Measurement

Curriculum Standards	Learner Outcomes
Understand measurable attributes of objects and the units, systems and processes or measurement	<ul style="list-style-type: none">• Covers an area with shapes (e.g., tiles).• Begins to make size comparisons between objects.• Begins to use tools to measure objects with non-standard units.• Begins to categorize time intervals and uses language associated with time in everyday situations.• Begins to order two or three objects by size.

Unit of Study: Geometry

Curriculum Standards	Learner Outcomes
Analyze characteristics and properties of two and three dimensional geometric shapes and develop mathematical arguments about geometric relationships	<ul style="list-style-type: none">• Begins to recognize, describe, and name shapes.• Begins to use words that indicate where things are in space.• Begins to put together two or more shapes in a creative manner.• Assembles puzzles of increasing complexity.