

Problem solving and reasoning that involve conceptual understandings of mathematics are the foundations of mathematics in Kindergarten classrooms. Rich and relevant mathematical problems involve important mathematical ideas and arise out of real-life situations, and can be approached in a variety of ways so that all children can be involved in exploring solutions. Solving such mathematical problems requires persistence, flexibility in thinking, and multiple perspectives, since there may not be a single, easy-to-find, correct answer. Through mathematics investigations in a wide variety of contexts, children develop their ability to use mathematics as a way of making sense out of their daily experiences. Through these investigations, they also develop increasing confidence along with the knowledge, skills, and attitudes needed to be numerate.

The Kindergarten Program (2016)

This chart is provided to help educators anticipate prior learning emphasized in the Kindergarten Program.

The Kindergarten Program (2016)	Grade 1 Expectation Cluster: Location, Movement, & Coding
<p>OE17 describe, sort, classify, build, and compare two-dimensional shapes and three-dimensional figures, and describe the location and movement of objects through investigation</p> <p>17.2 communicate an understanding of basic spatial relationships (e.g., use terms such as “above/below”, “in/out”, “forward/backward”; use visualization, perspective, and movements [flips/reflections, slides/translations, and turns/rotations]) in their conversations and play, in their predictions and visualizations, and during transitions and routines</p> <p>OE20 apply the mathematical processes to support the development of mathematical thinking, to demonstrate understanding, and to communicate thinking and learning in mathematics, while engaged in play-based learning and in other contexts</p> <p>20.3 compose pictures, designs, shapes, and patterns, using two-dimensional shapes; predict and explore reflective symmetry in two-dimensional shapes (e.g., visualize and predict what will happen when a square, a circle, or a rectangle is folded in half); and decompose two-dimensional shapes into smaller shapes and rearrange the pieces into other shapes, using various tools and materials (e.g., stickers, geoboards, pattern blocks, geometric puzzles, tangrams, a computer program)</p>	<p>E1 describe and represent shape, location, and movement by applying geometric properties and spatial relationships in order to navigate the world around them (Français)</p> <p>E1.4 describe the relative locations of objects or people, using positional language</p> <p>E1.5 give and follow directions for moving from one location to another</p> <p>C3 solve problems and create computational representations of mathematical situations using coding concepts and skills (Français)</p> <p>C3.1 solve problems and create computational representations of mathematical situations by writing and executing code, including code that involves sequential events</p> <p>C3.2 read and alter existing code, including code that involves sequential events, and describe how changes to the code affect the outcomes</p> <p>Process Expectation Focus: Reasoning and Proving, Connecting, Representing and Communicating</p>