

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: Data Literacy
<p>OE19 collect, organize, display, and interpret data to solve problems and to communicate information, and explore the concept of probability in everyday contexts</p> <p>19.1 ask questions that can be answered through data collection (e.g., "What is your favourite...?"; "How many pets do our classmates have?"; "Which month had the most snowy days – January or February?"), collect data, and make representations of their observations, using graphs (e.g., concrete graphs such as people graphs or graphs using representational objects; picture graphs)</p> <p>19.2 interpret data presented in graphs (e.g., "There are more children in the pizza line than in the hot dog line – that means more children like pizza"; "The blue bar is twice as long as the yellow bar"; "There were twice as many snowy days in January as snowy days in February") and draw conclusions (e.g., "There are more blue cubes than yellow cubes"; "January was more snowy than February")</p> <p>19.3 respond to and pose questions about data collection and graphs</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>20.5 investigate and describe how objects can be collected, grouped, and organized according to similarities and differences (e.g., attributes like size, colour)</p> <p>20.6 use mathematical language (e.g., "always/sometimes/never"; "likely/unlikely") in informal discussions to describe probability in familiar, everyday situations (e.g., "Sometimes Kindergarten children like pizza more than hot dogs"; "It is likely that January will be a snowy month")</p>	<p>D1 manage, analyse, and use data to make convincing arguments and informed decisions, in various contexts drawn from real life (Français)</p> <p>D1.1 sort sets of data about people or things according to one attribute, and describe rules used for sorting</p> <p>D1.2 collect data through observations, experiments, and interviews to answer questions of interest that focus on a single piece of information; record the data using methods of their choice; and organize the data in tally tables</p> <p>D1.3 display sets of data, using one-to-one correspondence, in concrete graphs and pictographs with proper sources, titles, and labels</p> <p>D1.4 order categories of data from greatest to least frequency for various data sets displayed in tally tables, concrete graphs, and pictographs</p> <p>D1.5 analyse different sets of data presented in various ways, including in tally tables, concrete graphs, and pictographs, by asking and answering questions about the data and drawing conclusions, then make convincing arguments and informed decisions</p> <p>Related Mathematical Processes: Problem Solving, Reasoning and Proving, Communicating, Representing</p>