

DOMAIN 1: APPROACHES TO LEARNING AND COGNITIVE DEVELOPMENT**SUB-DOMAIN: COGNITION AND COGNITIVE PROCESSES****REASONING AND LOGIC/ PROBLEM SOLVING****GOAL 12: CHILDREN USE CONJECTURE, HYPOTHESIZING, AND GUESSING.**

Age Range	Developmental Growth	Child Indicators	Caregiver Strategies
<p>60 Months through Kindergarten</p>	<p>Systematically tests ideas about how things work and applies those systems to social and physical settings.</p>	<ul style="list-style-type: none"> ▪ Structures experiments to see how changes in one factor can influence changes in others (sets up domino chain to test how knocking over one domino topples all of the others). ▪ Explains how one change can lead to another. ▪ Explains how simple events occur (tells another child how to make orange from red and yellow paint). ▪ Sets up and pursues purposeful experimentation; trying out different solutions (works with a pulley and string to raise blocks from floor to table top). Makes predications about what will happen next. ▪ Builds an awareness of other peoples' points of view and feelings. ▪ Uses multiple attributes of objects and situations to explain a problem and its possible solutions. ▪ Uses reasoning to predict and test ideas, though may resort to magical thinking if the solution or explanation is not obvious, or quickly found. ▪ Uses vocabulary for prediction and estimation. ▪ Use problem-solving strategies across places, people, and things, including classifying and predicting outcomes. ▪ Uses analogical thinking to allow transfer of problem-solving strategies to new situations. ▪ Solves addition and subtraction word problems and adds and subtracts within 10, by using objects or drawings to represent the problem. 	<ul style="list-style-type: none"> ▪ Engage child in experimentation; ask prediction and "what if" questions. ▪ Provide child with a variety of materials to create experiments. ▪ Ask children to think about their experiences and how that might help them solve a problem or come up with a solution to a social conflict. ▪ Demonstrate, explain, and engage child in taking steps to cause an outcome. ▪ Recognize importance of children's effectiveness in teaching one another.