

DOMAIN 4: GENERAL KNOWLEDGE			
SUB-DOMAIN: SCIENCE			
SCIENTIFIC INQUIRY—THINKING, ASKING, ACTING, AND SOLVING PROBLEMS			
GOAL 43: CHILDREN ENGAGE IN EXPLORING AND MAKING SENSE OF THE NATURAL WORLD BY ASKING QUESTIONS AND MAKING PREDICTIONS ABOUT CAUSE AND EFFECT RELATIONS THAT CAN LEAD TO GENERALIZATIONS.			
Age Range	Developmental Growth	Child Indicators	Caregiver Strategies
Birth through 8 Months	Engages and explores the physical and natural world.	<ul style="list-style-type: none"> <li>▪ Uses senses to begin understanding cause and effect during daily experiences and routines.</li> <li>▪ Uses sucking, holding, looking, touching, throwing, and dropping in sensory explorations.</li> <li>▪ Kicks, reaches, rolls, and makes sounds to gain a desired object.</li> <li>▪ Shows interest and surprise when events occur that do not follow expected sequences (e.g. shows surprise when a ball rolls into a tube and does not roll out at the opposite end).</li> <li>▪ Watches and predicts the actions of people, objects, and events in the world around them.</li> <li>▪ Shows preference or discomfort given specific sensory experiences (e.g. vigorously moving toward or away from objects and people).</li> </ul>	<ul style="list-style-type: none"> <li>▪ Be certain the environment is absolutely safe for the baby to explore (e.g. make certain the crib is free of hazards, the floor during floor time is clear of hazards, mealtime environments are hygienic and clear of hazards, and adult supervision is close and constant).</li> <li>▪ Offer safely suspended toys to bat and kick, especially those that make sounds.</li> <li>▪ Provide toys that change colors, patterns, or sounds when rolled or moved.</li> <li>▪ Take babies outside to see different light, longer distances, and feel temperature changes and breezes.</li> <li>▪ Wait for child to gesture or motion or make a sound as a signal for help or assistance.</li> <li>▪ Smile, nod, and verbally acknowledge the child's observations and explorations.</li> <li>▪ Encourage child to try out ideas, make mistakes, and develop contradictions.</li> <li>▪ Offer safe natural materials (leaves, shells, snow, and food items) for free exploration, being sure to closely supervise.</li> <li>▪ Offer responsive materials to explore.</li> <li>▪ Create an environment that inspires child to figure out how to do something.</li> <li>▪ Offer opportunities for infants to use two or more senses simultaneously (e.g. put a rattle in a box for the baby to</li> </ul>

			<p>discover as you shake it).</p> <ul style="list-style-type: none"> <li>▪ Provide toys and materials that can be used in different ways (balls bounce and roll and can be tossed into a container).</li> <li>▪ Refrain from intervening too quickly as child explores sensory experiences. Wait for the child's looks for help or verbalizations, then, offer help immediately.</li> <li>▪ Verbally describe the results of child's actions (e.g. "You dropped the spoon." or "Feel the dog's soft fur.").</li> <li>▪ Encourage repetitive activities such as "peek-a-boo."</li> <li>▪ Talk with child about objects and events (e.g. "Is that soft? Is that warm?").</li> </ul>
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