

STEAM STRETCHES ACROSS ELOF DOMAINS

The Head Start Early Learning Outcomes Framework (ELOF) provides language to help teachers, family child care providers, and home visitors understand child development and what children should know and be able to do to succeed in school. The ELOF guides the implementation of effective program and teaching practices that promote strong outcomes for all children, including children with disabilities or suspected delays and children who are dual language learners or child who are learning a tribal language. STEAM supports children's developing skills in multiple ELOF domains, including Approaches to Learning and Cognition. Children are born primed to explore STEAM concepts as they learn about the world. STEAM skills include active exploration, understanding causal relationships, reasoning, and problem-solving.

FOR INFANTS AND TODDLERS

- Science knowledge, skills, and concepts that we know are attainable for young children are primarily found in the **Cognition** domain under the subdomains Exploration and Discovery, Memory, and Reasoning and Problem-Solving.



FOR PRESCHOOLERS

- The central domain **Cognition** is comprised of two more specific domains—Scientific Reasoning and Mathematics Development. Mathematics Development includes the subdomains Counting and Cardinality, Operations and Algebraic Thinking, Measurement and Geometry and Spatial Sense. Scientific Reasoning includes the subdomains Scientific Inquiry and Reasoning and Problem-Solving.



Other areas of development connected to STEAM learning include the Central Domains **Approaches to Learning, Social and Emotional Development and Language and Literacy.**

- For example, the **Approaches to Learning** domain is about how children learn, rather than what they learn. It includes executive function skills that are crucial to STEAM exploration like Initiative and Curiosity, Creativity, and Cognitive and Behavioral Self-Regulation.
- When children engage in positive interactions with adults and other children while exploring their environment children are using skills found in the **Social and Emotional Development** domain. And by using both language and nonverbal communication, such as eye gaze and gestures to express interest and talk about what they observe, children are using skills found in the **Language and Communication** domain.
- Children’s exploration of the tools and materials in their environment facilitates children’s **Physical Development**, often requiring the use of fine and gross **Motor Skills**. For example, as children are digging for objects in the dirt, this requires fine or small motor movements. And when teachers take children on nature walks, this requires the use of gross motor skills to walk, run, or kneel to explore what they see!
- Teaching children in their home language is an important part of connecting STEAM to their family, culture, and developmental goals. You can further support children who are dual language learners or children who are learning a tribal language by describing what the child is observing and providing key terms in English and their second language.

