



## STEAM STRETCHES ACROSS THE 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.

### GUIDING PRINCIPLES OF THE ELOF

- Each child is unique and can succeed.
- Learning occurs within the context of relationships.
- Families are children's first and most important caregivers, teachers, and advocates.
- Children learn best when they are emotionally and physically safe and secure.
- Areas of development are integrated, and children learn many concepts and skills at the same time.
- Teaching must be intentional and focused on how children learn and grow.
- Every child has diverse strengths rooted in their family's culture, background, language, and beliefs.



Let us boldly implement what our ancestors practiced and take the time to bring forth the knowledge, values, ceremonies, social, and political institutions that bring out the spirit of every human child, no matter what age.

—David Wilkins, Lumbee



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.



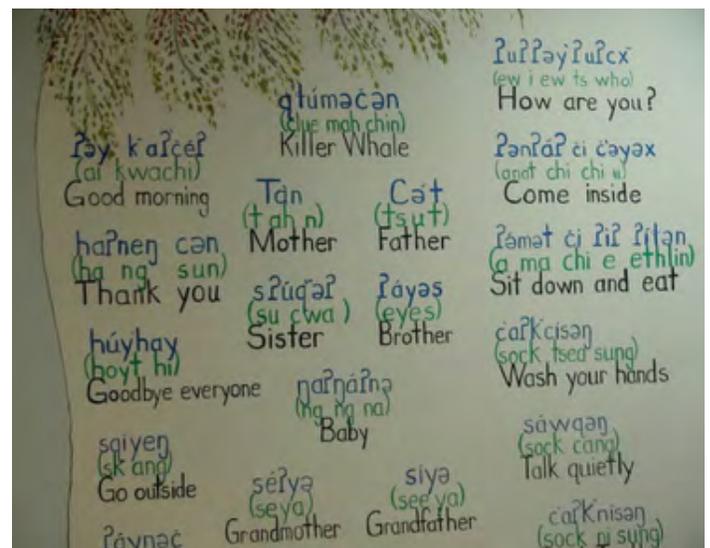
FOR PRESCHOOLERS

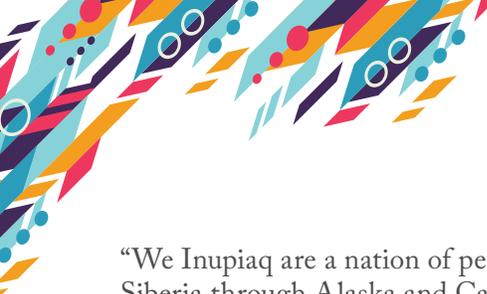
- The central domain **Cognition** is comprised of two more specific domains—Scientific Reasoning and Mathematics Development. Mathematics Development includes the subdomains Counting and Cardinality, Operations and Algebraic Thinking, Measurement and Geometry and Spatial Sense. Scientific Reasoning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

FOR BIRTH TO FIVE

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 picking berries, they need fine or small motor movements. And when teachers take children on nature walks, they use gross motor skills to walk, run, or kneel to explore what they see!
- Teaching children in their tribal language is an important part of connecting STEAM to their families, cultures, and developmental goals. You can further support children who are speaking or learning a tribal language by describing what the child is observing and providing key terms in their language and in English





“We Inupiaq are a nation of people occupying the circumpolar Arctic from Siberia through Alaska and Canada to Greenland. We share common values, language, culture, and economic systems. Our culture has enabled us to survive and flourish for thousands of years in the Arctic where no other man or culture could. For thousands of years, our traditional method of socializing our youth was the responsibility of the family and community. From the first, visitors to the Arctic have universally commented on the warm disposition of our children. Corporal punishment was absolutely unknown. Boys and girls began their education with their parents, and, by the time they reached their teenage years, they had mastered the skills necessary to survive on the land here. From that time forward, the youth—with his family and within his community—devoted his attention to his intellectual and social growth.” —Eben Hopson, North Slope Borough, Barrow, Alaska,

[http://www.alaskool.org/native\\_ed/historicdocs/PEOPLE/INUP\\_EDU.html](http://www.alaskool.org/native_ed/historicdocs/PEOPLE/INUP_EDU.html)

Making It Work is a tool every tribal and native community can use to connect research-based guidelines, including tribal and state early learning guidelines, as well as the Head Start Early Learning Outcomes Framework: Ages Birth to Five (HSELOF), with their own unique traditional cultural skills, values, beliefs, and lifeways. To learn more about this resource go to

<https://eclkc.ohs.acf.hhs.gov/sites/default/files/pdf/no-search/making-it-work-2017.pdf>





## THE MAKING IT WORK CYCLE

