

STEMIE IHE CoP

May 6, 2026

Quick recap

This Community of Practice meeting focused on inclusive STEM education in early childhood settings, featuring Dr. Yvette Merritt Cook as a guest facilitator. Jessica Amsbary and Chih-Ing Lim from the STEM Innovation for Inclusion in Early Education Center (STEMIE) introduced the meeting's norms and discussed their new visual support collection resource. Dr. Cook shared examples of inclusive STEM activities and lesson plans, including a non-speaking building challenge and a decision tree for creating accessible learning centers. The discussion covered implementation strategies for infants and toddlers, with participants exploring ways to incorporate multiple senses and natural environments into STEM learning opportunities. The conversation ended with Dr. Cook emphasizing three key takeaways: (1) early STEM learning can be integrated into daily activities without special materials, (2) children with disabilities can engage in exploratory learning through appropriate environmental setup, and (3) staying curious as a practitioner is essential for modeling problem-solving behaviors for future educators.

Discussion

Inclusion in Early Childhood STEM

- Everyone needs support: Children do not need to be repaired or fixed and have the right to be included ([Barton Lab](#))
- Have high expectations of children with disabilities as STEM learners ([STEMIE documentary](#) and other resources related to disability inclusion)

Visual Support Collection for STEM

- STEMIE's newly released [Visual Support Collection](#), includes visual cue cards, a guide, and a checklist to support young children's STEM learning, particularly for non-speaking students who are often excluded from STEM opportunities. Each visual cue card comes with the definition of the term as well as examples of how an adult can talk about it with children.
 - Students may be provided a case study where they can consider how to support a child/children using visual support, then read the blog post on how to pair language with visual cues. They can create an implementation plan and create customized collections based on topics or routines.

Inclusive STEAM Education Discussion with Dr. Mere-Cook

Dr. Mere-Cook, an occupational therapist and author of "Inclusive STEAM Education in Early Childhood," has a background in pediatric occupational therapy and her research on embedding

early STEAM learning in inclusive preschool settings. Dr. Mere-Cook discussed a study where the engineering design process was incorporated into center time, highlighting how it empowered children with disabilities by focusing on their strengths rather than areas of challenge.

Inclusion in STEM Learning Activities

Dr Mere-Cook described three main learning activities used to help educators understand inclusion in STEM for children with disabilities:

- 1) Have the students work as a group to solve a challenge using only non-verbal communication, demonstrating the importance of adapting communication methods based on individual needs.
 - 2) Create decision trees for setting up accessible learning centers in early childhood classrooms, considering factors like motor development, sensory processing, and different learning approaches. ([Templates for Learning Area Lesson Plan and Lesson Plan-Decision-Tree](#))
 - 3) Use case studies and video demonstrations to show that children with disabilities can engage in deep learning through open-ended approaches.
- The discussion included practical examples of implementing STEAM activities in inclusive settings, with particular attention to safety considerations and supporting children with disabilities. It was also discussed that safety is sometimes used as an excuse not to include children with disabilities in STEM experiences.
 - Dr. Mere-Cook also said that providing students opportunities to learn about and try out different STEM talk: self-talk (describing what you are doing), parallel talk (describing what the child is doing) is critical. Self-talk and parallel talk provide opportunities for language modeling and introducing STEM vocabulary.

Resources

- Besides STEMIE resources, Dr. Mere-Cook also shared some of her other favorite resources.
 - Importance of integrating arts and STEM: connecting music to math ideas on [DREME website](#)
 - For infants and toddlers, it is important to consider the use of multiple senses and natural environments. Example of resources: [STEMIE's Early Intervention Cards | Erikson institute](#)
 - Align teaching and learning including assignments to guidance from NAEYC (e.g., [DAP](#)), [DEC Recommended Practices](#), and the [Head Start Early Learning Outcomes Framework](#) to align with what students need to learn and do. Note: The Joint DEC/NAEYC position statement on early childhood inclusion is currently being revised and is another good resource to use.

Next Steps

- Join us for the next CoP on June 3rd session. In preparation for the meeting:
 - Please **bring a practice dilemma** related to incorporating inclusive STEM in your coursework and practica. We will share our challenges, then problem-solve ideas, perspectives, and possible solutions together to address and overcome them. You may also share it in advance with the STEMIE team by replying this email.
 - Bring a friend! Share the [registration link](#) with them!