UNIVERSITY of VIRGINIA
SCHOOL of EDUCATION and HUMAN DEVELOPMENT
CASTL

Developing Young Children's Inquiry Skills

INSTRUCTIONS

This handout was designed for use with the article, "Helping Young Children Develop Early Science Skills," written by Dr. Rosemarie Truglio for the Sesame Workshop Joan Ganz Cooney Center. The questions and activities in this handout could be used in a work session (e.g., professional learning community, professional development session), for individual coaching, or for self-reflection.

Goals

- Discuss how young children develop science skills as well as the role of adults in supporting children's inquiry skills.
- Discuss effective strategies for facilitating children's inquiry skills at home and within the learning environment.
- Plan to partner with families to become co-learners as you support infants' and toddlers' inquiry skills.

Activity

- Read the article.
- Use the questions below to reflect on effective ways to support infants' and toddlers' inquiry skills.
- Implement your plan and adjust as needed to support infants' and toddlers' inquiry skills.

By modeling scientific skills, not only are you enhancing your own knowledge, but you are experiencing the joy and wonder of learning with your child.

Sesame Workshop

REFLECTION QUESTIONS

- What caught your attention from the article? What made that fact, excerpt, or example meaningful to you?

- The article lists inquiry skills young children develop as they explore the science of the world around them. Very young children may begin by using their five senses to observe. Older infants and toddlers may start to use simple tools such as a magnifying glass, make guesses or predictions, collect and consider information, and share conclusions. Reflect on the children in your care.
    - How do different children in your care display these skills? What opportunities are available to infants and toddlers to develop inquiry skills through everyday activities? How do you think the children benefit from these experiences?
    - What have families shared about their children's early inquiry skills? What are they noticing at home?
        - Do families know what to look for when observing inquiry skills? How can you share what inquiry looks like for very young children?

- The author emphasized that though adults may not have the scientific knowledge to answer all the questions children may ask, we can join children in exploring and investigating as co-learners, allowing children opportunities to be independent learners. Reflect on your role in supporting children's early science skills.
    - What role do you usually play while children explore early science concepts? Are you more of an observer, a co-learner, or an instructor?
    - Educators and family members may feel intimidated by the possibility of answering questions or explaining scientific concepts to very young children. How do you think learning along with children can minimize those feelings and promote children's inquiry skills?
    - How might you share the benefits of functioning as co-learners in promoting children's early science skills with families? What strategies might you use to encourage families to learn along with children by exploring, investigating, asking questions, and discussing findings?

- Plan an inquiry-based experience, in which educators and families participate as co-learners in promoting infants' and toddlers' early science skills. Note that some family members may feel more comfortable observing as you model the inquiry strategies while others may want to immediately participate as co-learners.
    - What preparation might families need to make the most out of the experience (e.g., background information about the topic, examples of questions to ask, skills to encourage)?
    - What specific steps might you take to partner with families to engage as co-learners during the experience?
    - Implement the steps identified, monitor children's progress, and adjust the plan as needed to support children's inquiry skills.

ADDITIONAL RESOURCES

Learn more about supporting infants' and toddlers' inquiry skills:

- **Source:** PBS KIDS for Parents
- **Article:** Encouraging Curiosity with "Elinor Wonders Why"
- **Link:** https://www.pbs.org/parents/thrive/encouraging-curiosity-with-elinor-wonders-why
- **Description:** This article shares practical tips for encouraging children's curiosity, such as modeling interests in the world, asking open ended questions, and encouraging children to ask questions. Use this article to support families in encouraging children's curiosity and promoting their inquiry skills.

- **Source:** CECE Early Childhood Videos at Eastern CT State University
- **Video:** Investigating Containers
- **Link:** https://www.youtube.com/watch?v=AyO1GP-mLHY
- **Description:** In this video, educators share how allowing children to investigate containers supports scientific, math, creativity, and literacy skills. Use this video to support families in engaging children in inquiry-based experiences at home.

- **Source:** CECE Early Childhood Videos at Eastern CT State University
- **Video:** Investigating Nature
- **Link:** https://www.youtube.com/watch?v=rN854wBKvJI
- **Description:** In this video, educators describe how children engage in a variety of learning activities while investigating insects, worms, gardening, and other aspects of nature. Use this video to support families in engaging children in inquiry-based experiences at home.