Supporting Children to Document and Communicate

This handout provides examples of ways to support children to document and communicate about science concepts and phenomena.

Supporting Children to Document

Lead with Inquiry

- **Encourage children to document as a way to answer their own questions and explore curiosities they have about science concepts and phenomena.**
- **Provide time for children to observe objects and phenomena that interest them in different ways.**
  - Encourage children to use different senses and offer tools to support observation (for example, magnifying glasses and measuring tools).
  - Provide opportunities to compare and contrast objects and phenomena. Comparisons can highlight meaningful features.
- **Encourage children to explain their documentation as a way to learn more about their thinking process and understanding.**

Provide Tools, Materials, and Guidance

- **Explore different forms of documentation with children (for example, representational drawings, charts and graphs, or photographs). Discuss with children the types of information that different forms of documentation can communicate. For example, you might discuss how tally marks can be used to document the number of objects being counted.**
- **Provide tools or materials children might use to document their observations. For example, use science journals as a designated space for recording ideas about and experiences with science concepts and phenomena.**
  - Journals provide a specific space to document (for example, creating representational drawings) that is different from making art.
  - Journals allow children to revisit previous experiences and compare changes over time.
  - Read the article, "Science Journals in the Preschool Classroom" by Kimberly Brenneman and Ines Louro, for more practical strategies to support young children to use science journals.
  - Other tools and materials might include drawing and building materials, cameras, or graphic supplies.
- **Provide specific guidance to help children focus their documentation on science concepts and phenomena. For example, you might say:**
  - "Take a video to show the different ways the balls move."
  - "Create a representational drawing to show the different parts of the flower."
  - "Use the audio recording device to document ways you can change the sound of the instrument."
  - "Make a graph to compare the different heights of the plants."

Display and Revisit

- **Display, share, and revisit documentation with children and families.**
  - Revisit children's documentation with them to connect new inquiries to prior knowledge and experiences.
  - Send photos of children's documentation to families. Include dictations that capture the children's explanation of their documentation, descriptions of what children documented, and why they documented.
  - Display children's documentation around the learning setting. You might print and display QR codes to share digital content (for example, videos and audio recordings).

Supporting Children to Communicate

Notice and Be Responsive

- **Notice the different ways children communicate about science concepts and phenomena in ways that are accessible to them. Be responsive to the ways children show what they know and build on what children communicate. For example, children might use:**
  - gestures, movement, eye gaze, or facial expressions
  - home languages (spoken or written)
  - writing
  - augmentative and alternative communication devices
  - dramatic representations (for example, singing and storytelling)

Use Routines and Prompts

- **Introduce and repeat routines that support children to communicate. For example:**
  - Thinking and Feedback protocol: This protocol, from Boston Public Schools Department of Early Childhood, provides a method for children to share their ideas or experiences and receive feedback from peers and adults.
  - Think-Pair-Share: This routine, from Project Zero, teaches children to think independently about a concept or phenomena and then share it with a peer. Here is a video of a preschool educator explaining how he uses this routine in his learning setting.
  - I see, I think, I wonder: This routine, from Project Zero, supports children to notice, form ideas related to prior experiences, and form questions about the concept or phenomena being examined.
  - I Used to Think … Now I Think: This routine, from Project Zero, supports children to consider why and how their thinking has changed.
- **Use open-ended prompts to encourage children to explain their documentation. For example:**
  - "Tell me about your drawing."
  - "Why did you …?"
  - "I see you made (lines, dots, letters) here. What does that mean?"