



Learner's Guide
Webcast #3: Building the Foundation for Science
Language and Literacy through Science
Wednesday, April 29, 2009 at 2:00 p.m. ET

Today's webcast emphasizes the following key points about science in early childhood learning environments: (1) science is all around us; (2) young children employ basic science process skills; (3) the role of parents and teachers is to create opportunities for children to learn and to practice the process skills; and (4) adults create opportunities to foster thinking skills and dispositions to learn, extending beyond science, including language and literacy.

Here are some questions to guide your viewing and capturing of key content in this webcast and to extend your learning.

1. How can teachers and parents “follow a child’s lead” to build language and literacy skills as well as science knowledge?

2. How can teachers decide what phenomena to study with children? How do children let you know they are interested in something?

3. How does the Hart & Risley research on children’s vocabulary development described in this Webcast and in the book titled, *Meaningful Differences in Everyday Experiences of Young American Children*, relate to science experiences for infants, toddlers and preschoolers?

4. How might science experiences foster development across more than just the domain of Science? Complete the table below with your examples and identify the relevant domains.

Your Sample Experiences

Domains

5. What are the four types of word learning that are important to expanding children’s understanding of new vocabulary? Can you give an example of each?

6. List three reasons for introducing “juicy” or sophisticated words to young children.

7. What is representation and why is there such a need to support children’s abilities to represent their scientific thoughts using different media?



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8. Identify different representational media and their uses by parents and teachers in science explorations.

9. What kinds of representational tools can children use to document their understanding of science learning? How are children's representations used by teachers?

10. Select one science experience in which you've used a two-dimensional representation. Convert it to a three-dimensional representation. What additional ideas can be expressed with the three-dimensional representational model?

11. Identify five criteria that can be used in selecting quality science books appropriate for young children. Using these criteria, list three or four books currently available in your classroom or from a library.

12. What ways can teachers use journaling to support learning for all preschool children and what additional benefits might journaling have for dual language learners' literacy, language, and science understanding?

Reflective Questions to Impact Your Practice

13. What opportunities do you give children to communicate their own scientific thinking in a variety of mediums?

14. How do you encourage and support children to explore and to take risks as they demonstrate and justify their scientific thinking?