Documenting and Communicating in Science Inquiry

The purpose of this activity is for educators to experience different ways to document science concepts and phenomena.

Key Concepts

- Experience different types of documentation
- Understand how different forms of documentation can support thinking and communicating about different concepts and phenomena

Materials and Setup

- Paper
- Writing tools (for example, markers or crayons)
- Inquiry cards (pages 3–4)

20 minutes

Small groups

In-person or virtual professional learning

Activity Instructions

1. With a partner or a small group, choose an inquiry card. Each card features an example of an investigation and a description of information that is gathered during the investigation.
2. Consider the information that is gathered during the science inquiry described on the card.
    a. What form of documentation will best communicate that information and provide a meaningful answer to the question of interest?

Activity instructions continue on the next page.

3. Then, use the documentation method you select (refer to the list below) to document that information described in the inquiry card. For example, if the inquiry card describes the life cycle of a butterfly, you might create representational drawings of each stage of the life cycle.
    a. representational drawings
    b. models
    c. charts and graphs
    d. tally marks
    e. time tables
    f. photos or videos
    g. other forms of documentation
4. After completing your documentation, discuss the following questions with your table group:
    a. How did you document, and what information were you able to communicate through this documentation?
    b. How might children document and communicate during a similar investigation?
    c. How might you adapt the experience to support diverse learners to document and communicate?
5. Be prepared to discuss your experience with the larger group.

Inquiry Cards

What are the different parts of a plant?

You are provided a real plant to observe. You trace your fingers over the veins in the leaves, touch the bright pink petals, and notice the long, straight stem. You take the plant out of the pot so that you can also observe the roots.

What foods do caterpillars prefer—apples or leaves?

You place a piece of apple and some leaves in the caterpillar habitat. You observe the caterpillar over several days to notice what it is eating. You observe where the caterpillars are in the habitat at different times of the day—morning, before lunch, after recess, and before dismissal. You observe the caterpillars eating the apple 5 times and the leaves 13 times.

Which week did it rain the most?

You use a rain gauge to see how much it rains each week over a period of one month. On week 1, it rained 1 inch; during week 2, it rained 3 inches; during week 3, it did not rain; and during week 4, it rained 1 inch.

Which of these toys make sounds?

You shake different toys and notice if the toys make a sound or not (an image of different toys is included). You notice that the teddy bear, the ball, and the block do not make sounds when they are shaken. But the maraca, the rain stick, and the toy car make a sound when they are shaken.

You wonder where it is the hottest—outside in the sun, outside in the shade, or inside the learning setting.

You stand in these different areas and notice how they feel. You notice that it does not feel warm inside, it feels warm outside in the shade, and it feels really hot outside in the sun.