

Purpose and Materials Needed

In this activity we will consider Practice 8 of the Next Generation Science Standards (NGSS), *obtaining, evaluating and communicating information*. Before you begin, review the NGSS expectations for elementary school children for this practice. You should have watched two videos that are part of the EiE unit (*A Work in Process: Improving a Play Dough Process*) at home and brought your notes to class.



What are the teachers' and students' roles in obtaining, evaluating, and communicating information?

Predictions, Observations and Making Sense

Part 1: Your Ideas about Explanations

Obtaining, evaluating, and communicating ideas are an important part of everyday life, not only for scientists, but also for everyone who makes decisions. For example, when you decide how to vote on an issue that impacts the environment; decide how to improve or manage your health; or decide on purchases based on factors like reliability and environmental impact, you may have to obtain, evaluate, and communicate scientific information.

Guiding students in obtaining, evaluating, and communicating information requires that the instructor set up appropriate opportunities for the students to make observations and support their development of explanations.



In your Next Gen PET class, you communicate scientific information during class in whole class discussions or in discussions with your groups, and in extended written work such as the T&L extensions. Think of one example in your Next Gen PET class where you communicated information.

What kind of information did you need to communicate?



Think about how the task was set up. Who was the audience (e.g., peers, instructor)? What was the purpose of the communication (e.g., to convey information, to convince them of something)?

Part 2: Reflecting on Video Analysis

You should have watched the two videos that were part of the EiE unit *A Work in Process: Improving a Play Dough Process* at home. In these videos, children were tasked with communicating their ideas about the most effective play dough process through a set of activities designed by EiE and facilitated by their teacher.

CQ 10-1: Which of the following things did the teacher (or curriculum) NOT do?

- A. Provide an audience (real or fictional).
- B. Provide a sense of the type of communication necessary (e.g., written sentences or drawing; formal vs. informal language).
- C. Provide the specific information to be communicated.
- D. Provide resources (hands-on activities, text-based media) that may be used to obtain information.

Part 3: Designing a Task to Promote Communicating Ideas

In Extension O, you will work with children to develop the best recipe for oobleck (a substance that sometimes acts like a liquid and sometimes acts like a solid). Other than writing a letter to the company president as was done in

EiE, think of some ways you can set up a task that provides a reason to communicate and an audience (real or fictional) to communicate with. Brainstorm some ideas with your group.



Describe the audience you will ask them to speak or write to.



Describe how you will provide supports for the students in accomplishing this task.

Summarizing Questions

- S1. In activities where teachers are supporting students in obtaining, evaluating, and communicating information, what do you think teachers need to do *before* instruction?

- S2. In activities where teachers are supporting students' development of explanations, what do you think teachers need to do *during* instruction?

