

## Connecting to the Standards

This article relates to the following *National Science Education Standards* (NRC 1996):

### Content Standards

#### Grades 5–8

#### Standard B: Earth and Space Science

- Properties and changes of properties in matter

other rocks, your rock has to look good sitting all by itself.”

Students are encouraged to touch and manipulate the rocks as the others read to help them make a determination regarding ownership. Once each student has shared his or her paragraph, students reveal their guesses and delight in discovering how many of their identifications were correct. Typically, each student gets two or three of the rocks correct, however some students get all four correct—part of the point is that how many you get correct is mainly determined by the richness of the others’ paragraphs, and not so much by your own skill.

Once all the paragraphs have been read and guesses have been made, the discussion turns to the types of descriptors that the students found to be useful. Students share which descriptors were both more and less informative based on the circumstances. Some of the less-informative observations include the following:

- My rock is red
- My rock is small
- My rock is big
- My rock is bumpy

Those that were more informative include:

- My rock is about the size of my thumbnail
- My rock is triangular
- My rock is about the size of a quarter
- My rock is smooth on one side but bumpy on the other.

The teacher records the students’ comments on the board so that a discussion regarding the students’ observations may follow. During the discussion phase, teachers should pay particular attention to those observations that allowed students to easily identify the rocks and compare and contrast those with the observations that were less helpful. These might include specific references to shape (“triangular”) or size (“about the size of my thumbnail”) as compared to more general observations like “small” or “reddish.”

The precise use of language in the communication process is an obvious connection in this lesson, as is the importance of the accuracy of the students’ descriptions. The problem solving and reasoning processes come into play as students try to match the others’ descriptors to the rocks on the chart.

## Point of View

The activity concludes with another read-aloud, this time using Leo Lionni’s book *Fish Is Fish* (1970). Prior to reading, the teacher presents a minilesson on “point

of view,” using passages from various texts to explain, demonstrate, and guide students’ understandings of the concept of point of view. The teacher then instructs the students: “Listen as I read this book,

*Fish Is Fish*, by Leo Lionni. The focus in this book is on point of view and the role it plays in the descriptive writing and communication processes. Raise your hand when you hear clues about whose point of view is being heard in this story...How do you know?”

Following the read-aloud, students are led in a discussion of point of view, which the teacher redirects to the role of “point of view” in the initial “Secret Rock” activity. Specifically, after completing the sharing part of the exercise, students realize how important the orientation of the rock, for example, is in the approach they took to their description. Of primary importance, is letting students manipulate the rocks during the reading of the paragraphs. In changing the orientation of the rocks, students are able to view the rocks from various perspectives, giving them a better chance of determining the owner of each rock. *Fish Is Fish* deals with point of view and how your perspective has an effect on how you interpret or describe things, one of the purposes of the rock activity.

## Developing Observation and More

Through activities like this one, students gain deeper understandings of the process of observation and description. With practice, they begin to see how observations are useful in creating informative and operational definitions of objects, such as rocks. Developing observation skills also contributes to students’ development as writers. As students become more comfortable giving detailed descriptions in science, they will begin to apply these skills to other types of writing across the curriculum and teachers will likely see more specific, descriptive adjectives turning up in all types of students’ writing. ■

*Katie Rommel-Esham* (rommel@geneseo.edu) is an associate professor in the Shear School of Education at SUNY College at Geneseo in Geneseo, New York. *Susan D. Constable* (SConstable@otterbein.edu) is an associate professor in the Education Department at Otterbein College, Westerville, Ohio.

## Resources

- Baylor, B. 1974. *Everybody needs a rock*. New York: Aladdin Paperbacks.
- Lionni, L. *Fish is fish*. 1970. New York, NY: Scholastic.
- National Research Council (NRC). 1996. *National science education standards*. Washington DC: National Academy Press.