Pillbug

antenna

head

Segment

ridge

Leg

I sopod

backend
What do you observe about the isopods?

I noticed that they have a tail and I think that they lost for getting up.
I observed the snail has a mucous trail because it slid. The snail has a shell for protection. I wonder how many inches the snail is.
There was more water yesterday and is still water today.
First Grade, Sample A—Organisms Unit: Kimberly A. R.

- Kimberly’s scientific illustration has all the characteristics of an exemplary scientific illustration. It has a title (actually, two titles: Pillbug and Isopod) and is accurate, detailed, and large enough to show the details. Each line clearly points to the appropriate part, which is correctly labeled.

- Note that the teacher could have had the students draw a smaller illustration and they still could have included just as many details in less time than it takes to draw large drawings.

First Grade, Sample B—Organisms Unit: Shane

- Students have been studying the functions of the different parts of organisms.

- Shane makes a labeled scientific illustration, then writes a scientific observation and an inference about the function of a part: “I noticed that tau hav [they have] a tail and I think that uost [used] for gitinup [getting up].” Note that the phrase I think prompts students to make inferences after they have reported an observation.

First Grade, Sample C—Organisms Unit: Ella

- Ella makes a detailed scientific illustration, then adds labels and functions of the parts, which her teacher has modeled.

- Students were supposed to write an observation that begins with “I observed,” includes a part and its function, and ends with an “I wonder” statement. Ella includes two parts and their functions. You could ask, “How would a scientist find out how many inches long the snail is?”

- Note that Ella has connected the correct function with the mucus, but her use of because does not work. This is a common problem that students and adults can make when using because. You can help students learn to separate their observations from their thinking and inferences by using “I observed” and “I think,” as in this example: “I observed the snail has a mucus trail. I think the snail slides on the mucus. I observed the snail has a hard shell. I think the shell protects the snail.”

First Grade, Sample D—Weather Unit: Jesus

- Over several days, students have been observing a “puddle” they have made in a shallow pan. Their teacher asks them to write about what they have observed yesterday and today as a means of comparing a change over time, with the two words prompting students to report observations for each day. Without the two words, students typically report data from only one day.

- Jesus makes an accurate qualitative statement about his comparison of the amount of water: “There was more watdr [more water] yesterday and today is list watdr [less water].” If students measure the amount of water, they can add quantitative data to support a qualitative claim (for example, “There was more water yesterday and less water today. Yesterday, there was one cup of water, but today there was only three-fourths cup of water.”).