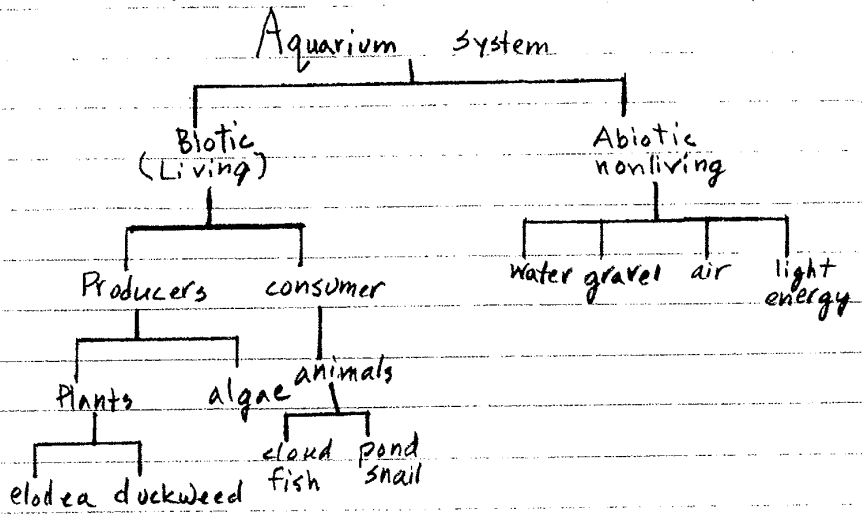
9/30/08

How do the living and nonliving things in the aquarium affect each other?



An ecosystem is an environment that has Biotic and ABiotic parts, and there are relationships between these parts.

If plants died, I think Animals will evenshly died because they need each other.

When we add the crickes in I think there will be less plants because I think the crickets are going to eat the plants.

Investigative Question:
What effect does fertilizer water have on plants and algae in our model ecosystem?

I preadicked that when I add fertilizer the plants will die Because it might be to much fertilizer. I think this because the plants might get over fed so they grow to much and soon they will die.

2/25/09

1. Question: if you take a light bulb out of a circuit containg two bulbs what happens?
answer: the bulb left does not light.
Prediction why: I think it does not light because there is a conect therefore a point wher a gap is left two things do not in the circuit.

Fourth Grade, Sample A—*Ecosystems* Unit: Alexus

- An important concept in this unit is the dependent and interdependent relationships in ecosystems. Eventually, students are asked to write about what would happen if either the plants or the animals in an ecosystem were to die. To help develop students' skills in thinking, talking, and writing about cause-effect relationships, it helps to create flow maps together and learn how to talk about them.
- By adding *because*, Alexus has to explain her idea that if the plants died, the animals eventually would die, too. Typically, students end their sentence without explaining why the animals would die. Here, a scientist would want to ask her what the plants provide for the animals. She provides more specific reasoning in the second sentence so that it is clear that the crickets eat the plants and that is why there would be fewer plants after the crickets were introduced.

Fourth Grade, Sample B—*Ecosystems* Unit: Alexus

- In this prediction, Alexus provides more detailed reasoning to support her statement. Based on their research, students know that too much fertilizer can damage plants. So Alexus predicts that the plants will die if they get too much of it. Her reasoning for why she thinks too much fertilizer could kill the plants is based on the common misconception that fertilizer is "food" and plants can die from being "over fed." But by providing specific details, she enables other scientists to understand her reasoning so that they can discuss it.

Fourth Grade, Sample C—*Circuits and Pathways* Unit: Kimberly R.

- After studying circuits, students are to answer a question, then provide reasoning for why they think the circuit will work in a particular way.
- Kimberly accurately and specifically answers the question. (Many students would write, "The circuit would not work.") She then provides an accurate reason (not a prediction) for why the bulb would not light.
- In this entry, students benefit from making a diagram so that they can draw what the circuit would look like without the second bulb. Kimberly understands the concept. If her teacher had asked students to make a diagram, Kimberly probably would have shown where the gap is in the circuit, which she implies in her writing but does not state explicitly.