

Bobbi Strickland - 4th grade - Stone Creek Elementary - Rossville, GA

Change in Ecosystem

S4L1. Obtain, evaluate, and communicate information about the roles of organisms and the flow of energy within an ecosystem.

c. Design a scenario to demonstrate the effect of a change on an ecosystem.
(Clarification statement: Include living and non-living factors in the scenario.)

d. Use printed and digital data to develop a model illustrating and describing changes to the flow of energy in an ecosystem when plants or animals become scarce, extinct or overabundant.

Background: Our classroom bearded dragon eats kale, strawberries, and mealworms. After watching her behavior for several weeks, we determined that she prefers mealworms, and out of the three, strawberries are her least favorite.

The class came up with the conclusion that if Zilla had a habitat full of strawberries, kale, and mealworms, Zilla would fill up on mealworms, and rarely or never eat kale or strawberries.

The Scenario: Students will come into class and notice signs all over the room, These signs say “Mealworm Shortage - because of a mealworm shortage, we will no longer be able to sell mealworms in 35 count containers. Customers may only purchase 10 mealworms each month.” This represents a change in her ecosystem in which her food becomes scarce.

Make Predictions: Students will make predictions on how this will effect Zilla and her environment. Students will write or type their predictions.

Observations: During the next 5 days, we will observe Zilla at feeding time, but during these 5 days, Zilla will only receive 2 mealworms at feeding time. She will still receive the same amount of strawberries and kale as before.

After Observations and note-taking for 5 days, students will answer the following questions:

1. Did Zilla’s behavior during feeding time change because of the limited amount of mealworms given to her each day? How did it change?
2. Do you think Zilla would have changed her behavior during feeding time if there was a shortage of strawberries instead of mealworms. Explain your thoughts.
3. Create some sort of diagram to compare/contrast Zilla’s eating behaviors before and after the shortage.

Closing : Allow 2-3 students to share their thoughts on how this lesson can relate to changes in a different environment. For example; take what you’ve learned and think about deer in the woods behind our school. What would happen if a fire caused all of the plants in the woods to die? What do you think the deer would eat until plants grew back? How would that affect the woods?

