



Maintaining a Balance (Learning Experience #2) Student Procedures



Lesson Essential Question: What are some ways that an exotic species can upset the balance among existing species in a living community?

Procedure

1. Your teacher will post the essential question for the scenario and the learning experience essential question. Confer with your team and suggest answers to these questions now that you have completed *Frankenfish* (LE 1). Your answers, together with an explanation, should be written in your journal and shared with the class. You will return to these questions at the end of the activity.
2. Talk to your team and agree on a list of all of the requirements for living and reproducing that a population of organisms must obtain from its environment. Write your answers on *Gotta Have It* (Student Sheet #1).
3. Share your answers in a class discussion, including where the requirements might come from and what you think will happen if one of them is no longer available because of the introduction of an exotic species. Contribute your ideas to the chart your teacher has posted.
4. Your team (or the entire class) will construct two models of a simple habitat that include a substrate, an animal, water (if an aquarium) or air (if a terrarium). One of the habitats will have plants that provide at least one of the requirements found on the class list and the other will not. Answer the questions in *Here then Gone* (Student Sheet #2) as you plan and construct your models and a data table for recording observations. After the models are ready, provide them with a source of light. If the models are placed on a window sill, be sure to protect them from extremes in temperatures.
5. Write a description of the models in your journal and predict what the similarities and differences in the animals' behavior will be after a week.
6. Working with your team, answer the questions in *Here then Gone* (Student Sheet #2). During the next week observe the animal(s) in the habitats for several minutes, and describe the animals' behavior and overall appearance in your data table.



7. Do you notice anything about where the goldfish or isopod likes to hang out? Why do you think this is so? Suggest a way to confirm your answer and test it out. Record your ideas in your journal.
8. Do some research to find an example of a non-native (exotic) species in your area. Organize your information in *New Kid in the Neighborhood* (Student Sheet #3). Use this information to make an oral presentation to your class and write a newspaper article about the species.
9. Reflect on what you have learned about introduction of non-native species into a habitat. Record in your journal what you think the public should know about the introduction of non-native species and what should be done to reduce the impact on the balance of the current ecosystem.