



# Ecosystem Interactions

## Activity

Ecology is the study of organisms and the environments that they live in. Ecologists are the scientists who study these specific areas of biological activity called ecosystems. Ecologists first study all of the interactions inside of the ecosystem. For example, as an ecologist, you don't just study a dolphin. You study the dolphin, water, sunlight, food supply, things that eat the dolphin, and any other possible factor that might affect the dolphin in its lifetime. These factors could include: weather, climate, tides, pollution, humans, and natural disasters. One example of how natural disasters affect dolphins happened after Hurricane Katrina.



The extremely violent waters caused many dolphins to become injured. Some of these dolphins were rescued and rehabilitated. The dolphin ecosystem and food supply was further affected by the millions of fish that were killed during this same storm.

## Procedure

1. Make various food chains using the information given on the cards.
2. Connect the food chains into a food web for the ecosystem. Draw a diagram of the food web in your lab journal.
3. Answer the following questions in your lab journal.
  - a. What interactions are happening between the Sun and the plants?
  - b. What interactions are happening between the plants and the primary consumers?
  - c. What interaction is happening between the Sun and the secondary consumers?
  - d. What interaction is happening between the producers and water?
  - e. What interaction is happening between the consumers and water?
4. Listen to the scenario described by your teacher. Discuss as a group how each scenario would affect your ecosystem.
5. Record how each scenario would affect your ecosystem in your lab journal. Draw a food web diagram in your lab journal to show the effect.
6. Answer the following questions in your lab journal:
  - a. How did the interactions change in your ecosystem when the abiotic factors changed?
  - b. How did the interactions change in your ecosystem with the biotic factors changed?