



HOMESCHOOL SCIENCE

BUILDING A MODEL OF THE FOOD WEB IN A LOCAL ECOSYSTEM

Name: _____

Date: _____

Location Studied: _____

PURPOSE

To create a model of the food web in a local ecosystem and show how living things are connected through feeding relationships.

MATERIALS

- Paper or poster board
- Index cards or sticky notes
- Markers or colored pencils
- String or yarn
- Tape or glue
- Scissors (optional)
- Field guide or internet resources
- Pencil



SAFETY

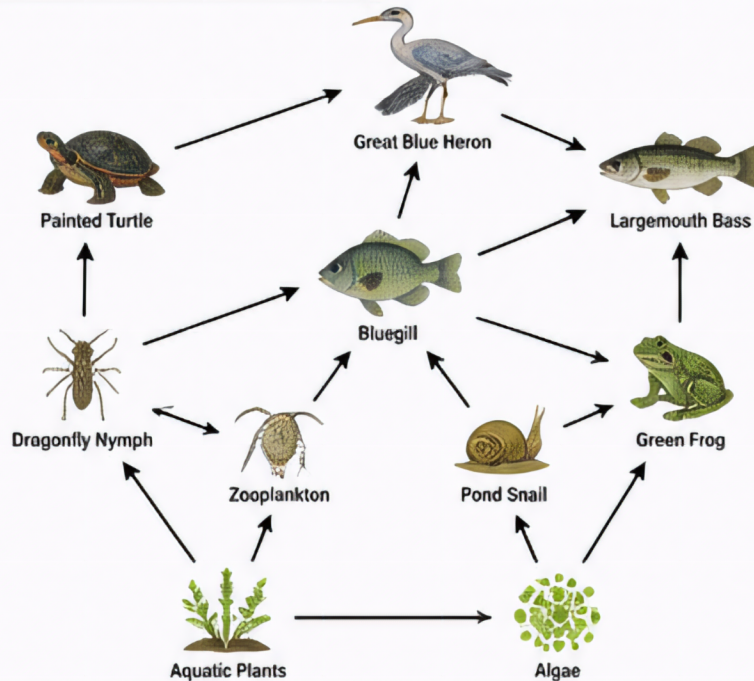
Be respectful of nature. Do not harm living things. Wash hands after outdoor exploration.



BACKGROUND

A food web shows the many feeding relationships between plants and animals in an ecosystem. Energy flows from producers (plants) to consumers (animals) and decomposers (organisms that break down dead matter). If one part of the web is removed, it can affect many other parts.

EXAMPLE: POND FOOD WEB



KEY

Producer: Makes its own food (usually plants or algae)

Consumer: Gets energy by eating other organisms

Decomposer: Breaks down dead matter and recycles nutrients

→ Arrow shows "is eaten by" (energy flows this direction)

PROCEDURE

- Choose a Local Ecosystem**
Pick a place to study (e.g., pond, forest, field, stream, or backyard).
- Observe and Research**
Make a list of living things in that ecosystem. Use observation, field guides, or reliable websites to learn what eats what.
- Create Organism Cards**
Write the name of each organism on an index card or sticky note. Add a small drawing if you like. Color-code if helpful:
 - Green = Producers
 - Blue = Consumers
 - Brown = Decomposers
- Build the Food Web**
Arrange the cards on your paper. Use string or yarn with arrows to show who eats whom. Arrows should point from the food (energy source) to the eater.
- Label and Check**
Review your food web. Make sure it shows many connections.
- Present Your Model.**
Give your model a title and be ready to explain your food web.

REFLECTION

- What producers are at the base of your food web?

- Which organism has the most food sources (is eaten by many others)?

- If one organism disappeared, which others might be affected? Explain.

- What did you learn about how living things are connected in your ecosystem?

EXTENSION IDEAS

- Compare food webs in two different ecosystems.
- Add decomposers (bacteria, fungi, earthworms) and show how they recycle nutrients.
- Research how human activities (pollution, habitat loss, invasive species) can affect your food web.

