

Pond Water Web - Lesson Plan

Purpose: As a result of this lesson, students will become familiar with common organisms found in a pond and discover their importance in a balanced aquatic habitat as they create food webs. Students will also investigate how an environmental change (pollution, disease, introduction of exotic species, etc.) affects a pond habitat.

Lesson Objectives

As a result of this lesson, students will be able to:

- (1) Identify common plants and animals living in an aquatic environment.
- (2) Create a food web illustrating the relationship of organisms in an aquatic habitat.
- (3) Determine the impact of environmental changes on a pond habitat.

Materials

Copies of *Life in a Pond* cards for each group
Scissors & glue
Large sheets of construction paper
Copies of student worksheets

Lesson Procedures

1. Ask students to brainstorm a list of plants and animals that can be found in a pond habitat. Student should record their responses on their worksheet. Create a class list of all the plants and animals.
2. Provide copies of the *Life in a Pond* cards for each group. Have each group cut apart the cards.
3. Discuss the different organisms found in a food web – producers, consumers, and decomposers. Have the groups separate their cards into the different categories and record the organisms on the student worksheet.
4. Create four food chains (three, four, and five links) using the cards provided. Students should write the food chains on their worksheet.
5. Challenge the students to create a food web using at least 10 of the cutter cards – the three with stars must be used. They should lay the cards out on the table and determine how each one will fit into the food web. Once they have it developed, provide a large piece of construction paper and glue to create a display.
6. Allow time for the groups to compare their food webs and record their answers on the student worksheet.
7. Refer to your list of plants and animals created at the start of the lesson. Ask students to create a card for one or more of the organisms and add them to their food web. Access to printed or online resources may be needed to assist them in identifying the diets of the various animals.

Discussion Questions:

1. What would happen to the food web if a specific organism was removed due to disease or pollution?
2. What would happen to the food web if the population of one of the organisms was to double?
3. How would the introduction of an exotic (invasive) species affect the food web?

Assessment

Students can be assessed through a variety of methods throughout the project. During the introduction, evaluation of the student responses to gain insight into their knowledge of the various life forms found in an aquatic habitat. Evaluating the food webs will determine if the students were able to organize the plants and animals to create an accurate food web. Evaluating student responses during follow-up discussions will identify misconceptions. Additional activities to address misconceptions should be provided.