

Pond Critters

GENERAL INFORMATION

OBJECTIVES

Students will discover what lives in a pond and understand adaptations for this lifestyle.

QUESTIONS

What kinds of things live in a pond? How are animals and plants adapted to living in still water? How might the life in this pond differ in the spring as opposed to the winter? Note what is flying around and above the water. What are some differences between these plants and animals from those that you find living on land? What kinds of things affect the survival of these organisms? What kinds of pollution can you find in pond water?

VOCABULARY

Senses, living, non-living, pollution, adaptations

ACTIVITY MATERIALS

Viewing trays, sampling nets, magnifying glasses, tarp, identification photos

METHODS

INTRODUCTION

Have the students sit on the tarp situated close to the pond to keep them from getting into the water. Ask: **Has anyone here ever explored a pond before? What kinds of critters have you found or expect to find in and around a pond** (water striders, water beetles, fish, dragonfly larvae, salamanders, snakes, caddis fly larvae and caddis fly casings, fish eggs, frog/toad eggs)? Explain that there are so many different types of critters living in and around the pond that it would take all week to count everything! Ask: **Why do you think the pond is such a good place for these organisms to live** (there is plenty of water to drink, food to eat, and shelter)? Explain that we know these critters are living because they need food, water, and air. Nonliving things do not need food, water, and air. Ask: **Can someone tell me what things in the pond are nonliving** (rocks, water, sand, dirt, etc.)? Another thing that makes the critters in the pond living is that they use senses to learn about the world around them. Ask: **What are the five senses** (sight, smell, touch, taste, and hearing)? Explain that all critters use at least one of these five senses.

Teacher's Corner

Grade Level(s)

1st and 2nd

Grade Level Expectations

GLE 0107 and GLE 0207

-Inq.3: Explain the data from an investigation.

GLE 0107

-2.1: Distinguish between living and non-living things in an environment.

GLE 0207

-2.1: Investigate the habitats of different kinds of local plants and animals.

-2.3: Identify basic ways that plants and animals depend on each other.

Pond Critters

ACTIVITY

Break the students up into groups of two or three. Explain that they are going to use their own senses to learn about the pond (sight, hearing, and touch only). Have a viewing tray, sampling nets, and magnifying glasses for each group of students. Ask the kids to help find critters in the pond. They can scrape the nets against the bottom to turn up things living in the sand/soil. After finding any organisms, if possible, bring an example of each to every tray. Using the identification pictures, ask the students to pick out which animals they have found. Ask questions about each organism to get the students familiar with what type of animal it is and what adaptations help it survive. Discuss some adaptations that these organisms exhibit.

Example of discussion of an organism: Have the students collect and observe water striders. Ask the students to think about various behaviors and features the water striders are displaying.

Ask: **Are the water striders on the water surface or under the surface? What seems to be at the ends of the legs** (small bumps that appear to be feet are actually depressions in the film of the water surface)? **Do any of the striders appear to be eating? What do you think they eat** (they eat small insects that either swim up to the surface or fall into the water)?

Induce behaviors by doing the following:

Pick up a small piece of grass and drop it onto the water surface. Ask: **How did the water striders react** (water striders detect even slight water movement through sensory organs in their legs)?

Allow students to use magnifying lenses to observe the following features:

- 3 body parts, 6 legs, and two antennae;
- Short front legs used for prey capture;
- Long middle legs used for “rowing” and jumping;
- Long back legs used for “steering” and jumping;
- Claws high on legs so as not to break the water surface tension;
- Hairy legs for trapping air to help walk on the water surface.

DISCUSSION

Review the following points: What are some living things found in the pond? What are some non-living things? What are the five senses? What senses did we observe today in the critters we collected? What are some of the adaptations we learned today? How do the critters we found interact with the other living things in the pond? How do you think pollution would impact the living things we found in the pond?

WRAP-UP

Allow the students to return their critters back to the pond. Explain that why this is important.

ACKNOWLEDGEMENTS

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