
1. THE POND IS A HABITAT FOR?

Overview: Students will collect and observe pond samples.

Objective: Students will learn aquatic sample collection techniques and identify organisms found.

Time needed: 1 hour

Group Size: 2-4

Age appropriateness: 4th grade and up

Site: Garden Pond

Background: A pond ecosystem is very diverse with many interdependent micro-organisms.

Materials:

Provided at the Garden

Dip nets
collection pans and containers
eyedroppers
magnifying glasses
microscopes
bubble slides
plastic spoons
metal tea strainers for "backflushing"
scoopers

Provided by the classroom teacher
small collection jars with lids
pencils and journals or paper

Preparation:

Pre Activity: Provide students with knowledge of microscope use.

Procedure:

1. Each group will collect a water sample by sweeping the dip net through the water, bringing it out of the water, and then holding it upside down over the observing pan, fill a smaller container with pond water and pour the water through the net in order to wash all the contents of the net into the observing pan.
2. Let the contents of the pan settle down so that the small aquatic creatures may be seen against the light-colored background.
3. Write and draw what is seen with the naked eye.
4. Using eyedroppers, place smaller samples in the bubble slides and observe with the microscope.
5. Record observations.
6. Repeat this process to see what other living things they may find using their scoopers to scoop samples from the bottom of the pond.

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7. Return to classroom to research and identify names of organisms found.
 8. Discuss the collections and how they relate to the pond ecosystem.

Modifications:

Extensions: Collect and compare samples from different pond locations or other water ways in the region.

Reference List:

Pond Life--Delta Education
Project Learning Tree
Project Aquatic Wild
Pond Life by George Reid, A Golden Nature Guide.

Time of Year: Organisms are more abundant in warmer weather.

Plankton Net

To make your own nets, you need a wire coat hanger and some fabric like an old sheet or cheese cloth. Bend the hanger into a circle and attach edges of the cloth to it or form the net.

Scoopers

To make your own scoopers, you need butter tubs, 36 inch dowels and some 1- 1 1/2 inch nails. Attach the butter tubs to the end of the dowels with a nail.

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Answer the following questions about objects observed:

What color is it?

Show it's size by drawing a line as long and/or as wide as it is.

How does it appear to move?

What does it look like that is familiar to you?

Any other observations?

Make a quick sketch below (bigger than life size). Be as attentive to detail and as accurate as possible.