Examine an Ecosystem - A Classroom Project

Materials:

A large jar of pond water, recently collected. Ideally, you should have two jars collected from two separate sites for comparisons. Collection sites include lakes, streams, ponds, or creeks. It is best to collect samples from the edge of the water and include dirt, mud, plants and other debris.

Thermometer, pH paper or test kit, water test kit, microscope or stereoscope

I. Initial Observations

From the outside of the jar, describe the condition of the water, and any organisms you can see. Check to see if the water has an odor or coloration. Record your observations.

II. Testing the Waters

With the kits available to you, test the water of each of the jars. Record your observations on your data table.

III. Identifying Organisms

Use a pond identification guide to identify organisms living in the water. There are many guides online, or you can print the Pond Identification Guide. You may not be able to find the exact names of every organisms you see, but you can make a "best guess" based on the organism's appearance. Record data on the organisms for each pond.

IV. Date and Analysis

DATA and OBSERVATIONS

**Initial Observations**

**Sample One:**

**Sample Two:**

**Testing (list kit or test)**

**Sample One:**

**Sample Two:**

**Identifications & Sketches**

**Sample One:**

**Sample Two:**

Final Analysis: Write a short paragraph to answer the experimental question: Which pond water sample is capable of supporting the greatest diversity. Use your data and observations to support your answer. Answer on separate page.