Analyzing An Ecosystem Field Trip

Summary
This is a field trip activity, our school has wetlands nearby, any other distinct ecosystem would suffice. Students will gather quantitative and qualitative data to describe this ecosystem.

Main Core Tie
Science - Biology
Standard 1 Objective 3

Time Frame
4 class periods of 60 minutes each

Group Size
Small Groups

Materials
CBL units
temperature probes
ph paper
field guides
pond water tour test tabs
dissolved oxygen
ammonia
computers

Student Prior Knowledge
Students should understand biotic, abiotic, relationships between living things, the difference between quantitative and qualitative data.

Instructional Procedures
Hook:
Have a picture of the wetlands on the overhead. Tell students they will be taking a series of field trips to research a hypothesis.
Indicate that we will be collecting both quantitative and qualitative data for the biotic and abiotic factors of this ecosystem
Ask the students to brainstorm at their tables a hypothesis they wish to test. Ex. If water is in the stream, then it will have more microorganisms.
Have student write hypothesis on the overhead or whiteboard.
Talk about sample size (it will be small so our results will not be extremely meaningful)
Divide students into groups and have them brainstorm how they will collect their data. Make sure they know what equipment will be available to them for their use. They should write down their procedures and show them to you.
Collect data 3 times at the
Have groups prepare their data for the class and present data. You may want to have them make computer generated graphs and tables
Have students summarize data findings individually
They should write a brief conclusion for this lab.
Assessment Plan

Scoring Guide:

Students were on task in their groups................10 pts
Students collected complete and accurate data sets 3 times....30 pts
Students presented data clearly......................15 pts
Student had good understanding of what the data meant........15 pts
Results were summarized concisely...................15 pts
Conclusions were pertinent to the lab............20 pts

Bibliography
Lesson Design by Jordan School District Teachers and Staff.

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