

## Succession

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School or Agency: St. Anne's Wetland Education Outreach Project

Grade Level(s): 10-12

Science Topic: Ecological Succession

Summary: Students will observe a specific area of the wetlands that has been affected by succession. They will use their skills to observe, hypothesize, record and compare the negative or positive affects succession has had on the area.

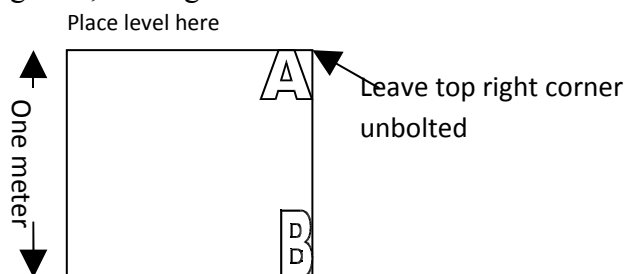
Core Content: Science in Personal and Social Perspectives. More specifically: Natural Resources and Environmental Quality

Objectives: Students will observe and record elevation, and differences in vegetation in two environments, hypothesize what animals could live in the environment, generalize that change is constant, and apply the concept of succession to change in natural environments.

Materials: Four Meter sticks, 3 bolts per survey tool made, writing and graph paper.

### Procedures:

1. Prior to coming to the wetlands, make a survey tool out of yard sticks, bolt three sides of the yard sticks together, leaving one side unbolted. Place a small level on the topside of the tool.



2. Make one tool for the entire class to use, or one tool per group of students can be made.
3. Follow the trail through the wetlands to station (four). This station is a representation of ecological succession. Look for a spot where there are two different elevations present. The students should also be able to view two different types of vegetation.
4. Establish a starting point for measurements. Use the survey tool to measure the difference in elevation. Keep the top stick level. Record the difference between point A and B. The difference will either give you the gain or drop in elevation. Move the tool exactly one meter, and again record the difference between A and B.

5. Have the students observe the plant types in the area. As well as record the elevation measurements recorded.
6. They should observe the dominant plant types found in the area observed, and also describe changes in plant types from one measurement site to the next. Students should also pay attention to the vegetation at the first measurement point, and the vegetation at the last measurement point, compare, and contrast the differences between the two areas.
7. Once all measurements have been completed have the students hypothesize what animals would be found in that area. The students should be able to justify their answers based on how the environment meets the basic survival needs of the animal.
8. The students should also hypothesize what changes they suspect to see in coming years. Encourage the idea that change is constant.
9. Lastly, have the students graph the elevation measurements that were recorded.

Assessment Techniques: Have the children define the meaning of succession, and describe how it is important in the environment.

Resources: Adapted from Project Wild Secondary Activity Guide. John, Denver, et al (1986). *Project Wild*. Western Regional Environmental Education.

Extensions: To express the idea of how humans can affect succession, you could redo the experiment in an area that represents secondary succession, and compare the differences in the data recorded.