Quadrats

Goals: Teach the students scientific method, sharpen their observation skills, and learn producers, consumers, decomposers and non-living things.

Time: 45 minutes to 1 hour

Materials: Quadrats (1 meter squares made from PVC pipe, meter sticks or rope)

Procedure: Break the group into smaller groups. Have the students make a chart, which includes producers, consumers, decomposers and non-living things. Split that chart into two sections – one for each area you will be observing. Explain scientific method and how ecologists might use similar techniques. Randomly throw quadrats out into area 1. Have the students find as many of each component as they can in their quadrat. Explain to them that their quadrat goes all the way to the sky. Give them about ten minutes and then move to area 2 and repeat the same procedure. After they have studied each area discuss the findings and compare the areas. Talk about why some things were found in one area but not the other and why some things were found in both.

Variations & Extensions: Taking weather, GPS and elevation readings in each area would be a good extension. Having the students complete a "Close Observation Data Sheet" from Ecosystem Explorations for each section would also really help them define the differences between the areas. This exercise also lends itself quite well to a discussion of habitats.

Background Information: This activity seems to work very well when done in two distinct areas. The students sometimes need to be prodded into really looking closely at their area. The more the instructor takes part and helps identify things the easier the wrap up will be.

Other Considerations: This activity is not well suited for wheelchairs. Works especially well when there are parents for each group. Keep in mind that some areas are fragile so moving this activity around is a good idea.

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