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Living Ecosystems in my Backyard

by Amy Ellisor

Objective

This lesson teaches students about the marvelous, complex ecosystems that live all around us. Students will develop an awareness of man's impact on natural areas. Students will discover complex organisms including trees, animals, and plants and in turn see how these organisms use energy and materials from the environment to transform them into other matter for the larger environment.

Materials Needed

Magnifying glasses, notepads and pencils, specimen box, camera, bread crumbs, crumbled crackers, sugar, pre-measured lengths of string(5-10 feet), a variety of reference books, Two Bad Ants by Chris Van Allsburg(optional children's book written from the observational perspective of ants).

Strategy

Locate a safe space to explore. Parks, a city street with a sidewalk, a backyard or a vacant lot are great options. Divide into small groups and assign each group a different observation perspective. One group should observe at ground level, one at eye level, and one overhead. Complete the following investigational tasks. Record all observations by taking notes, drawing, and capturing photographs.

Investigational Tasks

- Use your nose to smell the area. What are the strongest smells? Are they natural or man-made?
- Gently lift a rock, move a branch, or turn over a leaf. Record what you see and carefully restore what you moved.
- Look for evidence of animals life: tracks, homes, food, droppings. Be an animal-watcher. Where are they? Describe their physical features. What are they doing? How many different species did you find? Try to identify each species with the help of our reference materials.
- Be a micro-observer. Watch an ant or other small insect. Do you see them sharing work. Scatter some food and see if they behave differently.
- How have humans impacted this space? Have they caused harm or benefit? Describe these actions.
- Find a 5-10 foot stretch of space. Walk slowly and carefully in this area. Observe and count all of the plant and animal species in your area. Now do the same for the whole area. Record your findings.
- Look for animal homes or plants growing in man-made structures.
- Think about food chains in this area. Do the animals you have discovered live off of nature or human factors such as gardens, garbage, etc.?
- Hold a plant or animal in your hand. If you find an insect, place it in the specimen box to observe. Sketch and photograph it. Return it to it's habitat safely. Tell why you chose the specimen.
- Find your own quiet spot and sit alone. Close your eyes and listen to the sounds around you. List the sounds you hear and group them into natural or human sounds.

Conclusion

Discuss and compare your observations with your group members and whole class. Chart your findings on graph or chart paper and classify similarities and differences. Use your notes, sketches and photographs to create paintings or a large mural. Come up with a class plan for improving the habitat you explored. Adopt this area and begin beautification and ecological enrichment plans to sustain the life present.