



Science Unit: *Temperate Forest*

Lesson 1: *Exploring Forest Objects**

*This lesson is based on B.C. Ministry of Forests' Forests in Focus Pp. 4-7 "Exploring a Forest"

School year: 2004/2005
Developed for: Lord Selkirk Annex Elementary School, Vancouver School District
Developed by: Catriona Gordon (scientist), Gwynne Thompson and Donna Milligan (teachers)
Grade level: Presented to grades 1 - 2; appropriate for grades K – 3 with age appropriate modifications.
Duration of lesson: 1.5 hours
Notes: This activity requires at least 1 adult per station for younger children.

Objectives

1. Explore a forest ecosystem using forest objects (e.g., bones, moss, fungi, leaf litter, branches, feathers, etc.). Have students use their senses (touch, smell, hearing, feel) to experience forest objects. Children are blindfolded and must guess what forest objects are.

Background Information

Forests are the richest and most complex natural terrestrial habitats on Earth. Forests, a common ecosystem in B.C., are dominated by trees and shrubs. Forests consist of living and non-living elements including plant and animal species, air, soil, water, light and nutrients. These forest elements are connected through flows of energy and the cycling of nutrients and minerals. Coastal temperate rain forests are home to a very diverse range of plants, animals and other organisms.

Vocabulary

Forest: Large tract of land covered by trees and undergrowth.
Moss: Low-growing green plant found in damp places.
Lichen: Organism comprised of fungi and alga; grow on rocks, soil and plants.
Fungi: Organism which obtains its food from living or dead organisms, and grows in damp places.
Cones: Reproductive part of evergreen conifer tree, carrying seeds.
Needles: Narrow leaves of an evergreen conifer tree.

Materials

- 6 opaque tubs or buckets with opaque lids
- blindfolds enough for each student (strips of an old sheet)
- 12 forest objects which may include:
- bell or whistle
- numbered labels #1-6 for tables
- leaf litter, forest soil, leaves, branches, bones, feathers, moss, lichens, deer antlers, bark, rotting log, needles, cones, bird nests or other forest items



In the Classroom

Introductory Discussion

1. Brainstorm about what a forest is. Has anyone been in a forest? What makes a forest different from your backyard or the schoolyard?
2. On flipchart or blackboard divide forest into living and non-living parts. Brainstorm for each category:
 - Living: trees, ferns, moss, fungi, bacteria, animals (types), birds, insects etc.
 - Non-Living: soil, air, sunlight, water (streams, ponds, lakes, snow, rain).
3. Briefly brainstorm about what forests feel like. (e.g., shady, cool, damp, dark, quiet, peaceful) and what type of forests exist (tropical, temperate, evergreen, deciduous)
4. Safety: Don't eat any plants and wash hands before eating. Leaders must lead and protect their blindfolded partners with care. Walk slowly, holding hands.
5. Respect plants, insects and other living creatures of the forest. Emphasize that all samples collected today will be returned to the forest.

Science Activity/Experiment

1. Use gym or lunchroom and set up 6 forest sensory stations ahead of time on tables numbered 1-6. Place one forest object into each opaque tub and place one tub on each table. This is the first set of tubs, for the first set of students.
2. Divide students into 2 groups, and give each group a forest name (e.g. Cougars, Bears). Cougars are blindfolded while Bears are the leaders.
3. Leaders lead the blindfolded to a forest station. Leaders open the tubs and the blindfolded student may smell and touch the object to try and guess what it is. Blindfolds can then be removed and students answer the corresponding question on the student activity sheet. After guessing what the object is, they can peek into the tub.
4. Blindfolds and tub lids are then replaced. Ring a bell or blow a whistle to signify to students that they move to the next station.

NOTE: With younger children it greatly helps to have an adult volunteer at each table to facilitate and replace blindfolds.

5. After the first group of blindfolded children has completed the 6 stations, replace the tubs with the second set of tubs containing 6 new forest objects for the second group of children. Students switch roles and repeat the activity so that each student is both a leader and blindfolded.

Closure Discussion

Make a circle and reveal the forest objects to students and where the objects came from. What did they like best to feel? What did they not like to feel? What was easy/difficult to guess? What is something new they learned about forests?

References

1. B.C. Ministry of Forests. 1999. Forests in Focus. ISBN 0-7726-3966-3 Pp. 1-7.
2. <http://www.cpawscalgary.org/education/pics/5min-fieldtrips.pdf> CPAWS, Canadian Parks and Wilderness Society, Calgary/Banff Chapter, 2002, [Five Minute Field Trips, Nature Trust Walk, page 7 of PDF].



Extension of Lesson Plan

1. Read a book about temperate rain forests.
2. Conduct this activity outdoors in a forest setting.
3. This lesson could be divided into two shorter 40-45 minute lessons.
4. This lesson could be done with more than one class to save set-up and clean-up of materials.
5. For Kindergarten students, reduce the number of stations to 4 and have more adult volunteers.