
Ecosystem Observation Cards

Activity Overview

Students go out to a remnant or restoration with a set of Observations Cards to familiarize themselves with an ecosystem at different times of year.

Objectives

Students will:

- Experience a natural setting through first-hand contact
- Practice observation skills at different times of year
- Develop a list of words to communicate impressions and observations
- Draw observed subjects

Subjects Covered

Science, Math, Language Arts, and Art

Grades

K through 8

Activity Time

1-2 hours, depending on time spent observing, distinguishing and identifying insects

Season

Any

Materials

Observation cards, writing utensils, clip boards, measuring sticks

State Standards

Language Arts:

Science:

Math:

*Adapted to California by Return of the Natives•CSU Monterey Bay

Background

An important first step in studying or restoring an area is to get to know the model ecosystem. Students, as well as adults, may have had little first-hand experience with the ecosystem in question. While background material is important, students must have an opportunity to experience the natural model that they are going to recreate.

Our first encounter with an ecosystem should include observing, exploring and interacting with the natural area. Identification generally comes later. We can observe small and large changes in a single natural area during different times of the year. Too often we can get bogged down in identification and fail to open our eyes to other things going on.

Simply going out and sitting in an area is not likely to hold attention or prove useful to a significant degree. Giving students direction and focus will help them make observations and personalize the experience. There are many ways to provide this direction. Following this page are masters of Observation Cards. These cards are only a beginning; cards that challenge students to consider other things such as color, texture, patterns, seasonal changes, plant-plant or plant-animal interactions and wind movement might also be effective. In addition, these cards can and should be modified, expanded and customized to fit needs and interests of students, ecosystem, season, available time, and so on.

Activity Description

Identify a restored or remnant example of the ecosystem to study. Prior to beginning the activity, define the boundaries within the chosen ecosystem where students will make their observations. Make sure students understand that staying within the boundaries protects them and wildlife that may be in the area. You may choose to have students work in pairs or individually to complete the Observation Cards outdoors. After returning to the classroom, have students share their Observation Cards with the class and then compile the results as a group. Discuss what surprises, if any, they found in the observation area. What plants and animals did they see or hear? How might this area differ from another area like the woods, schoolyard, prairie or other ecosystem? What might they expect to observe during another season of the year? Students can assemble the appropriate cards to make a classroom book or create a guidebook of observations for other people who may visit the same ecosystem.

Extensions

- The words generated on the “What’s Happening” card can form the basis for a creative writing or poetry exercise.
- Create a mobile of the things observed.

Ecosystem Observation Cards (cont.)

- Graph findings from the “Take a Look” tallies. Compile data from the “Take a Look” cards for a biodiversity study. See the Earth Partnership for Schools activity, “What’s Green and Grows All Over? Studying Ecosystem Biodiversity.”
- Develop a computer database to file information collected for comparisons over time.
- Investigate what appears different when looking at the area from outside its boundaries.
- Pretend to be a small creature living in a prairie (or other ecosystem), such as a prairie dog, butterfly or a meadowlark. What makes this place a good place for you to live? What makes it not so good?
- Create a Phenology Book or Calendar that describes their observations throughout the year.

Additional Resources

- Curtis, John T. (1955). *Vegetation of Wisconsin*. University of Wisconsin Press. Madison, WI.
- Levine, Carol. (1995). *A guide to wildflowers in winter*. Yale University Press, New Haven, CT.
- Locker, Thomas. (1995). *Sky tree*. Harper Collins Publishers, USA.
- Murie, Olaus. (1982). *Animal tracks (Peterson field guide)*. Houghton Mifflin, Boston, MA.
- Pearce, Tony. (1990). *Exploring woodlands: A cross-curricular approach to investigations of the woodland environment*. Hampshire Books, Exeter.
- Stokes, Donald W. (1976). *A guide to nature in winter*. Little, Brown & Co., Boston, MA.
- Weber, Larry. (1996). *Backyard almanac*. Pfeifer-Hamilton Publishers, Duluth, MN.

Assessments

- Develop a list of words to communicate your experiences while observing the ecosystem.
- Present your observations to your peers using mathematical models (e.g., graphs, charts, diagrams).
- Compare and contrast the similarities and differences of your observations from different times of the year.