

FACTivity

Time Needed: One class period

Materials Needed:

Visit <http://www.naturalinquirer.org> and print one each of the following articles:

Urban Forest Edition: (1) What you see is not what you get, (2) I've got you covered, (3) Good to the last drip, (4) Yard sale!, (5) Social groupies, (6) Balancing act.

Wilderness Benefits Edition: (1) Wilderness makes sense, (2) Elemental, my dear! (3) Can you hear me now? (4) Speakological, (5) As the frog hops.

Students will divide into pairs.

(These 11 articles should be enough for each pair of students to have their own article. If all of these articles cannot be printed, select enough so that the class is in groups of three to four and each group has its own article. More than one pair of students can read the same article.)

Each pair (or group) should have a blank piece of lined paper and a pencil.

The question you will answer in this FACTivity is: What are other ecosystem services provided by the Nation's natural resources? The method you will use to answer the question is:

5 minutes:

As a class, discuss the term "ecosystem services" and what it means. If you have not done so before, read "Welcome to the Ecosystem Services Edition of the *Natural Inquirer*" on page 6. Before continuing, students should understand what ecosystem services are in a broad sense. In other words, students should understand that all natural areas provide at least one ecosystem service, or environmental benefit, to humans. Some of them provide many ecosystem services.

15 minutes:

Each pair (or group) of students will have an article and a blank piece of lined paper and a pencil. The pair (or group) should write their names and the article title on the top of the paper. Each pair will read only the following article sections: Thinking About the Environment, Introduction, Method, Findings, Discussion. Students should read the article aloud, rotating paragraph by paragraph.

10 minutes:

Each group will identify as many ecosystem services as possible found in their article. Note that these services may not be identified as such in the article. Students should use their imagination to identify more than one ecosystem service. One student will write these ecosystem services in a list, using this example format:

1. When fruit bats eat fruit, they later defecate the seeds at a place far away from where they ate the fruit. A new fruit tree may then grow. This is an ecosystem service because fruit bats help to spread the seeds of fruit trees and, therefore, enable new fruit trees to grow in new places.

10 minutes:

Students will share their list of ecosystem services with the class. Hold a class discussion about the types of services provided by the natural environment. Do the services identified provide important benefits? Why or why not?

Students should turn in their sheets to the teacher. The sheets can be used for assessment.



If you are a Project Learning Tree-trained educator, you may use #71, "Watch on Wetlands" as an additional resource.

FACTivity Extension



For homework, students will observe the natural land (and water) around them and identify as many ecosystem services as possible. Students can start with the schoolyard, looking out of the bus or car window, observe while they are walking, or explore the area around their home. The ecosystem services should be identified in written form, using the format given above. In class, using a rapid-fire format, students will share their observations. Students should consider all they have learned about the environment to identify ecosystem services. Students may be assessed on the number of ecosystem services identified, and the clarity and correctness of written expression.

Additional Web Resources:

Scientific American podcast on ecosystem services, 60-second Earth:
<http://www.sciam.com/podcast/episode.cfm?id=why-ecosystem-services-matter-09-02-05>

Ecological Society of America: Ecosystem Services: A Primer:
<http://www.esa.org/ecoservices/comm/body.com.fact.ecos.html>

Forest Service Ecosystem Services:
<http://www.fs.fed.us/ecosystems-services/>

