

The Importance of Biodiversity



Objectives

The students will:

- Articulate the reasons that the preservation of biodiversity is important.
- Research and write a short article about the source of a particular product.

Materials

- Source/Product Cards (print and cut out)

Procedure

1. **Explain to students that Zadou, from *Winter in Songming*, lives in one of the most biodiverse regions of the world (see “Three Rivers” lesson for more details on the biodiversity of Songming county).** Although he and his community must use resources like soil, water, plants, animals, and building materials to survive, they must keep these needs in balance with the importance to preserve the natural environment and the species that live in it for the future. Discuss this quotation with your students:

In our every deliberation, we must consider the impact of our decisions on the next seven generations.

— *The Great Law of the Iroquois Confederacy*

Ask:

- a. What does this law mean?
 - b. Why do you think this is important to the Iroquois?
 - c. Is it, or should it be, important to other people?
 - d. What choices can people make to preserve the Earth for future generations?
2. **Point out to students that most of the things we love and take for granted today come from natural sources.** If we don't consider the impact of our decisions on the next seven (or more) generations, our descendants may not have some of these wonderful resources.
 3. **Give each child a source or product card, and tell them that some of them have commonly used products and others have the natural sources of those products.** Ask them to find the person who holds the “matching” card to theirs. For example, if a



National Standards Addressed



COMMON CORE LANGUAGE ARTS

Writing

W.3.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

W.3.7 Conduct short research projects that build knowledge about a topic.

W.3.8 Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories



NEXT GENERATION SCIENCE STANDARDS

ESS3.C Human impacts on Earth systems

Societal activities have had major effects on the land, ocean, atmosphere, and even outer space. Students describe things society does to protect Earth's resources and environments.



Procedure (continued)

child had a “french fries” card, she would find the person holding the “potatoes” card.

4. **Once students have found their matches (with support if needed), ask each pair to brainstorm a list of ways that the world would be different if the source of their product went extinct.** Have each pair share their product/source match and their brainstorm list with the class.
5. **Give students a few minutes to select a food, medicine, or clothing item that was *not* one of the source/product card sets.** Some suggestions are coffee, pepper, vanilla, cotton t-shirts, silk scarves, and penicillin.
6. **Each student should research the source of his or her selected item, and write a short article which answers the following questions:**
 - a. In what form is your item found in nature?
 - b. Where does it grow?
 - c. Is it endangered or at risk?
 - d. What steps have been taken, or could be taken, to preserve it for the next seven generations?

Links To Heifer International

Biodiversity

Heifer supports biodiversity through the cultivation of heritage fruits, vegetable and animal breeds. Read more about Heifer’s biodiversity efforts at www.heifer.org/biodiversity



Standards (continued)

LS1.C Organization for matter and energy flow in organisms

Food provides animals with the materials and energy they need for body repair, growth, warmth, and motion. Plants acquire material for growth chiefly from air, water, and process matter and obtain energy from sunlight, which is used to maintain conditions necessary for survival.

LS2.A Interdependent relationships in ecosystems

The food of almost any animal can be traced back to plants. Organisms are related in food webs in which some animals eat plants for food and other animals eat the animals that eat plants, while decomposers restore some materials back to the soil.

LS4.D Biodiversity and humans

Populations of organisms live in a variety of habitats. Change in those habitats affects the organisms living there.



Cocoa/ chocolate	Cacao Tree
Quinine (malaria drug)	Chinchona
Brazil Nuts	Brazil Nut Tree
Aspirin	Willow Tree (bark)
Rubber	Rubber Tree (sap)
Kola (cola drink flavoring)	Kola Nut Tree
Chicle (original chewing gum)	Chicle Tree

Standards (continued)



C3 SOCIAL STUDIES

D1.1.3-5. Explain why compelling questions are important to others (e.g., peers, adults).

D2.Civ.10.3-5. Identify the beliefs, experiences, perspectives, and values that underlie their own and others' points of view about civic issues.

D2.Eco.3.3-5. Identify examples of the variety of resources (human capital, physical capital, and natural resources) that are used to produce goods and services.

D2.Geo.4.3-5. Explain how culture influences the way people modify and adapt to their environments.

D3.1.3-5. Gather relevant information from multiple sources while using the origin, structure, and context to guide the selection.

