

Global Marketplace

Method

Students will use a checklist to find out more about the plants they depend on for food and fibers. They will guess which plants originated in the United States and check their guesses by researching individual plants.

Introducing the Activity

“Global” trade and travel are recent buzzwords, but they are nothing new. People have always been on the move. The thing that has changed is the speed and scope of movements. As people traveled to new places, they took with them the plants they depended on for survival (i.e., plants that provided food, clothing, medicine, fuel, and shelter). They also transported plants used for art and celebrations.

Doing the Activity

- 1. Examine common foods, fibers, and medicines.** Pass around several items obtained from plants. See list of materials. Ask students what plants these foods, fibers, or medicines came from. While some are obvious, others are not (e.g., chocolate from cacao tree, linen from flax plant, and aspirin from willow tree). Discuss where these plants originated. You don't need to answer all these questions now; just help students start thinking about them.
 - Does anyone know where cacao trees grow?
 - What about oats? We know we raise oats in the United States, but where did the first oat plant grow?
 - What part of the world did potatoes come from? Who first discovered that they were edible and cultivated them?
- 2. Pass out *Plants of the Global Marketplace*.** Ask students to check how often they use each of the plants listed on the worksheet. Ask them to check if they think the plants originated in the United States.
- 3. Assign homework.** Ask each student to choose one of the plants on the list to find out where it originated. Students can also add plants that interest them to the list. Give extra credit if students can present short histories of the plants' movements around the globe.

Queen Anne's lace
(wild carrot)



Objectives

- Recognize that people move valuable plants around the globe.
- Identify some of the non-native plants we use each day for food, clothing, and medicines.

Grades

4 – 12

Group Size

Individuals

Activity Time

Two 50-minute periods plus homework

Setting

Classroom

Materials

- Commonly used plant products (e.g., chocolate candy bar, oatmeal, cotton t-shirt, linen table napkins, can of carrots, empty aspirin bottle, raisins, and wheat crackers)
- Copy of *Plants of the Global Marketplace* for each student (page 12)
- Access to Internet
- Sticky notes (optional)
- **Invasive Plants of the Upper Midwest**

Connections

See next page.

Academic Standards

Grade 4

- Science: B.4.1
- Social Studies: A.4.7, D.4.3

Grades 5 – 8

- Environmental Education: B.8.14
- Social Studies: A.8.7

Scout Connections

- Junior Girl Scouts: Plants and Animals

Optional for younger students: Ask each student to draw a picture of one of the more familiar plants on a small sticky note. Individually or as a class, stick each plant on a large world map indicating the region of the world where it originated. See answers on page 11.

4. **Discuss findings.** Were there any surprises? Did any of the plants that students use daily originate in the United States? Most of the plants we depend on for food, fiber, and medicine are not native to the United States. If we didn't have access to these foods, our lives would be very different. Help students realize that many non-native plants are beneficial. We plant and tend these plants to provide products that we depend on. Most of these plants could not survive outside of cultivation. Therefore, they are not likely to escape and become a threat to natural areas. In other words, they are non-native, but not invasive.
5. **Find the wild ones.** Challenge your students to find two plants in the list that do grow in the wild. Both carrots and apples grow wild in the United States. Wild carrot, also known as Queen Anne's lace, invades forests and grasslands. See page 104 of **Invasive Plants of the Upper Midwest**.

Assessing the Learning

Assess students' ability to locate and present information about the origins of plants.

Extending the Learning

Reenact the First Thanksgiving. By the time Europeans arrived in America, native peoples had moved many food crops from Central America northward. Here is a list of some of the plant foods that were available to people at the first Thanksgiving:

- Nuts (walnuts, chestnuts, acorns) – native to eastern United States
- Beans (red, black, green, and pinto) – from Central and South America
- Squashes (including pumpkin) – from South America
- Corn – from Central America
- Sweet potatoes – from Central America
- Leeks – native to eastern United States
- Berries (cranberries, blueberries, currants) – native to northern United States
- Maple sugar – native to northeastern United States
- Popcorn – from Central America

Of course, they probably also ate venison, fowl, fish, and seafood. How many of these plant foods arrived from Central and South America before Europeans arrived? Discuss how this menu is different from the Thanksgiving meals that your students enjoy.

Search for natives at the grocery store. Ask students to visit their local groceries and find native foods for sale. Check the contents. Can they find food that is native to the United States, yet raised outside the United States? What foods did people move from our country to other parts of the world?

Finding Out More!

Texas A&M Horticulture Program. 2000. Features an online reprint of a 1949 article by Victor R. Boswell titled "Our Vegetable Travelers." <<http://aggie-horticulture.tamu.edu/plantanswers/publications/vegetabletravelers/index.html>>

Plant Name	Region of Origin
apple	Caucasus mountains, southeast Europe, western Asia
aloe vera	Africa
(source of aloe gel found in skin lotions and cosmetics)	
cacao	Central America, northern South America
(source of chocolate)	
carrot	northwest India, Afghanistan
cinnamon	Sri Lanka
corn	southern Mexico, Guatemala, Honduras, Costa Rica
cotton	Central America, India
cranberry	northern United States, Canada
flax.....	Europe
(source of linen)	
lettuce	Turkey, Iran, Turkistan
oats	eastern Mediterranean, Eurasia
peas	Mediterranean, northwest India, Afghanistan
black pepper	India, Asia
onion	northwest India, Afghanistan, northern and central China
potato	Peru, Ecuador, Bolivia, Chile
pumpkin	Peru, Ecuador, Bolivia
ephedra	Asia
(source of ephedrine in decongestants – commercially made as pseudoephedrine)	
rice	southeast Asia
soybeans.....	central and western China
sugar cane	tropical southeast Asia
(source of sugar)	
sugar maple	northeastern United States, southeastern Canada
(source of maple syrup)	
strawberry	northern United States, Canada
sweet potato.....	southern Mexico, Guatemala, Honduras, Costa Rica
tomato	Peru, Ecuador, Bolivia
black walnut	northern United States, Canada
watermelon	south-central Africa
wheat.....	eastern Mediterranean, Eurasia
white willow	Europe
(source of aspirin – aspirin is now made commercially)	
wild rice	northern United States, Canada

Plants of the Global Marketplace

How much do you know about the plants you depend on for life?

Plant name	How often do you use this plant?				Where is this plant from?	
	Daily?	Weekly?	Monthly?	Rarely or Never?	United States?	Other Country?
apple						
aloe vera						
cacao						
carrot						
cinnamon						
corn						
cotton						
cranberry						
flax						
lettuce						
oats						
peas						
black pepper						
onion						
potato						
pumpkin						
ephedra						
rice						
soybeans						
sugar cane						
sugar maple						
strawberry						
sweet potato						
tomato						
black walnut						
watermelon						
wheat						
white willow						
wild rice						