

# A Few of My Favorite Things

## Activity 15

Here's a way to give your students a better appreciation for how many natural resources they depend on in their day-to-day lives. By tracing the resources that go into making one item, they will learn how the manufacturing of just one product can have an impact on the environment.

### Levels

Grades 2-8

### Subjects

Social Studies, Science,  
Visual Arts

### Concepts

- Humans use tools and technologies to adapt and alter environments and resources to meet their physical, social, and cultural needs. (1.4)
- The quantity and quality of resources and their use—or misuse—by humans affects the standard of living of societies. (2.9)
- All humans consume products and thereby affect the availability of renewable and nonrenewable natural resources. (2.11)

### Skills

Discussing, Analyzing,  
Elaborating, Generalizing,  
Representing

### Technology Connections

Presentation Software

### Materials

Favorite objects brought in by students; paper and art supplies for presentations

### Time Considerations

Preparation: 10 minutes  
Activity: One to two 50-minute periods

### Related Activities

*We All Need Trees, A Look at Aluminum, Resource-Go—Round, Renewable or Not?*

### OBJECTIVES

- Students will explain how the different materials that go into making a product all come from natural resources.
- Students will identify natural resources as being renewable or nonrenewable.
- Older students will also describe some of the impacts from obtaining and processing natural resources and the energy required for making products.

### ASSESSMENT OPPORTUNITY

- Examine each student's poster from Step 8 to assess how well each understands the type of resources, materials, and energy that go into

making their favorite thing. The following criteria can be used for the assessment:

- Drawing of favorite thing with at least 4 parts accurately labeled.
- Accurate identification of resources used for all parts labeled.
- Accurate identification of whether or not the resource(s) was renewable.
- Accurate identification of energy used to produce favorite things.
- All lettering is neat, readable, and correctly spelled.
- Drawings are clear and necessary information is labeled.
- Has title that is large enough and legible
- Overall design is creative and appealing to the eye.

### BACKGROUND

See Backgrounds for "Renewable or Not?" and "Resource-Go-Round."

### DOING THE ACTIVITY

1. Have each student bring in a favorite object such as a skateboard, book, or toy. Give students five minutes to write down as many of the materials that went into making it as they can. They should be able to generate a list of common materials just by looking at the object (plastic, wood, aluminum, steel, leather, rubber, glass, and so on).

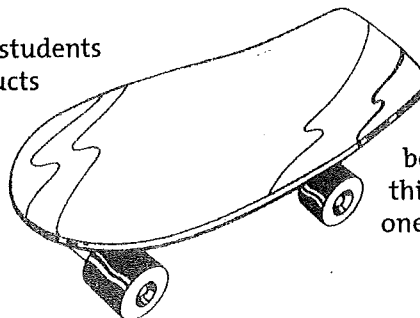
2. Ask several students to describe their possessions and the materials that went into making them. As they list the materials, write them on the board, without duplicating responses.

3. Explain to the students that all the products we use and the materials in them are derived from

natural resources—resources that occur naturally on Earth. Go down the list of materials on the board and help the students to identify the natural resource from which each material is derived. Afterward, ask the students to identify the major groups of natural resources from which all of the materials are made (plant, animal, metal or mineral, or fossil fuel). See "What's It Made Of?" on the following page.

4. Explain to the students that some natural resources can be renewed or replenished while others cannot. Ask students which of the resources that they've identified are renewable and which are not (plants and animal sources are considered renewable). Which materials in their favorite things come from renewable resources? Could the materials that are not from renewable resources be substituted with materials that are?

5. Explain that some materials can be recycled and some cannot. Have the students look at the list of materials on the board and decide which ones they think can be recycled and which ones cannot. (Glass, paper, steel,



## What's It Made Of?

Major Group	Natural Resource	Material
Plant	Trees	Wood, Paper, or Cardboard
	Rubber trees (sap)	Rubber (natural)
	Cotton plants Cotton plants or trees*	Cotton Cloth
Animal	Cow hide	Leather
	Sheep wool	Wool
Metal or Mineral	Sand, limestone, and soda ash	Glass
	Bauxite ore	Aluminum
	Iron ore	Steel
Fossil Fuel	Petroleum and natural gas	Plastic, Rubber (synthetic), or Cloth (synthetic)

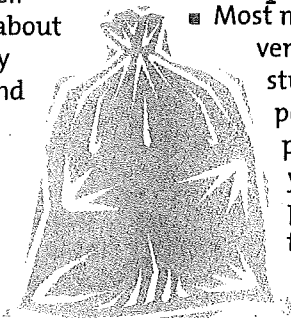
\* Rayon is made of cellulose from trees

aluminum and some plastics can be recycled.) Does this mean that products made from these materials can always be recycled? (No, it is difficult to recycle products that contain different resource materials mixed together.) Can any of the items the students brought in be recycled? Can any of them be reused? How long will they last? Will they eventually get thrown in the trash?

### For Older Students:

6. Ask the students if they know what type of fuel or energy was used to make their favorite item and to transport the item to them. (Most transportation in our country uses petroleum, a fossil fuel. Manufacturing may use natural gas—a fossil fuel—or electricity, which is generated using coal, natural gas, or hydropower). What energy is used to maintain it? Are these renewable sources of energy?

7. Have students look at their favorite thing again, think about all the materials and energy that went into making it, and decide whether these were derived from renewable or nonrenewable natural resources. For example, a skateboard might have a



plastic board derived from petroleum, metal wheel supports from minerals in the earth, and rubber wheels from tree sap. So, in this example, the only material that might come from a renewable resource is rubber. In addition, nonrenewable fossil fuels (oil, gas, coal) were used to process raw materials for manufacture, and transport the skateboard.

8. Students should use poster paper and markers to create a visual representation of their favorite thing, showing the materials, resources, and energy that go into making it.

Instead of making a poster or picture, have students research their favorite thing and make a slide presentation showing the materials, resources, and energy that go into making it. See [www.plt.org](http://www.plt.org) for an example.

### Enrichment

#### Dumpster Dive

Most manufactured items are very difficult to recycle. Have students find out what happens to those items when people throw them away in your community. (They probably end up in a landfill or incinerator.)

### Swap Shop

- People throw away things that are still useful because they are no longer interested in them or don't want to have them repaired. This problem can be solved by giving items away, fixing them, or finding ways to reuse them. Students can practice reuse by setting up a classroom Swap Shop.
  - Have students bring items from home that can still be used, but that their family no longer wants and would eventually throw out.
  - Have students put the items on a table in back of the room.
  - All the students should inspect the table and see if there's anything on it they want.
  - The group should discuss what rules should apply to the swap. One possibility is to have students sign out items on a first-come basis. If more than one person wants an item, students should take turns, with each person taking it for a certain period of time.

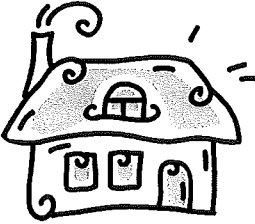
### Trashion Show

- Students come up with new inventions or alternate uses for broken items, such as turning a broken aquarium into a planter. Have students bring an item from home that is broken and would eventually get thrown out. Put all the items on a table and have students select something they would like to try to fix or find an alternate use for. Your class could have a Trashion Show in which students exhibit their new creations from trash.

### READING CONNECTIONS

Lasky, Kathryn. *Sugaring Time*. MacMillan, 1983. Text and photographs show how a family taps the sap from maple trees and processes it into maple syrup. Grades 2-7. ISBN: 0808584456.

Woods, Samuel. *Chocolate: From Start to Finish*. Blackbirch Press, 1999. Begins with cacao tree and the harvesting of beans, includes chocolate blending, molding, filling, coating, packaging, and new-product development. Special sidebar on the history of chocolate with the ancient Olmecs, Toltecs, Mayans, and Aztecs of Meso America. Grades 3-6. ISBN: 1567113915.



## Building Green Buildings in Your Classroom

# Activity: A Few of My Favorite Things

**Instructions:** In the space below, draw a picture of one of your favorite things (toy, household object, etc.).

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**Instructions:** In the spaces below, list as many materials as you can think of that went into making your favorite thing.

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