



Renewable versus Nonrenewable Natural Resources*

Activity M.e

GRADE LEVELS: 7 - 8

OBJECTIVE: To introduce the concept of renewable versus nonrenewable natural resources.

VOCABULARY: renewable, nonrenewable, aluminum, petroleum, bauxite

PROCEDURE:

Obtain a collection of items that would normally be included in the waste stream. The collection should include examples of products from natural resources that both can and cannot be renewed (or recreated).

Reproduce the "Resource Tree" on pg. 2 of this activity and distribute to the class.

Using the diagram, have students identify the raw materials used to make each item and decide whether they are renewable or nonrenewable. In the discussion, point out that aluminum, tin, steel, and petroleum and all nonrenewable resources. Help students to understand that some materials are not renewable because they are the result of geological processes that take millions of years to complete. Nonrenewable resources are in limited supply and once they are used up, they are gone forever.

Paper and cardboard come from the renewable source of wood (trees), but wood is being used at a faster rate than it can be produced commercially. At the conclusion of the discussion, students should be able to place any piece of solid waste into the categories of renewable and nonrenewable resources.

Aluminum cans, from bauxite (nonrenewable)

Tin-plated steel cans, from iron and tin (nonrenewable)

Glass bottles, from sand, soda ash, and limestone (nonrenewable, but in plentiful supply)

Paper, from wood (renewable)

Cardboard, from wood (renewable)

Organic waste, such as plant clippings and food scraps (renewable)

Plastic containers or bags, from petroleum (nonrenewable)

* Source: U.S. Environmental Protection Agency Let's Reduce and Recycle: Curriculum for Solid Waste Awareness