



LESSON PLAN - IT'S GOT TO COME FROM SOMEWHERE

TARGET AGE GROUP: 1st Grade thru 4th Grade

ESTIMATED TIME: 30-45 Minutes

PURPOSE

Students will distinguish between renewable and nonrenewable resources. In addition, students will develop an awareness of the natural origins of a variety of modern products.

VA SOLs

This activity can be used to complement classroom instruction related to the following VA SOLs:

First Grade: Science - Resources 1.8 The student will investigate and understand that natural resources are limited. Key concepts include:

- a.) Identification of natural resources (plants and animals, water, air, land, minerals, forests, and soil);
- b.) Factors that affect air and water quality; and
- c.) Recycling, reusing, and reducing consumption of natural resources.

Second Grade: Science - Resources 2.8 The student will investigate and understand that plants produce oxygen and food, are a source of useful products, and provide benefits in nature. Key concepts include:

- a.) Important plant products (fiber, cotton, oil, spices, lumber, rubber, medicines, and paper);
- b.) The availability of plant products affects the development of a geographic area; and
- c.) Plants provide homes and food for many animals and prevent soil from washing away.

Third Grade: Science - Resources 3.10 The student will investigate and understand that natural events and human influences can affect the survival of species. Key concepts include:

- a.) The interdependency of plants and animals;
- b.) The effects of human activity on the quality of air, water, and habitat;
- c.) The effects of fire, flood, disease, and erosion on organisms; and
- d.) Conservation and resource renewal.

Third Grade: Science - Resources 3.11 The student will investigate and understand different sources of energy. Key concepts include:

- a.) The sun's ability to produce light and heat energy;
- b.) Sources of energy (sunlight, water, wind);
- c.) Fossil fuels (coal, oil, natural gas) and wood; and
- d.) Renewable and nonrenewable energy resources.

Fourth Grade: Science - Resources 4.8 The student will investigate and understand important Virginia natural resources. Key concepts include:

- a.) Watershed and water resources;
- b.) Animals and plants;
- c.) Minerals, rocks, ores, and energy sources; and
- d.) Forests, soil, and land.

OBJECTIVES

- 1) Students will define "natural resource" and be able to list examples of natural resources.
- 2) Students will define "renewable resource" and list examples of renewable resources.
- 3) Students will define "nonrenewable resources" and list examples of nonrenewable resources.
- 4) Students will discuss how reducing, reusing, and recycling helps preserve our natural resources, regardless of whether they are renewable or nonrenewable.

MATERIALS

- Product Machine: 4 chairs; large bed sheet and clips; household object word cards (laminated and enough cards for one card per student; natural resource cards - Animal, Petroleum, Rock/Mineral, Plant (laminated and enough for one card per student); 4 large labeled boxes/bowls/Ziploc Bags (1 per natural resource category - Animal, Petroleum, Rock/Mineral, Plant)
- Whiteboard/Chalkboard/Student Notebook
- Dry Erase Markers/Chalk/Student Pencil

PART I: LESSON INTRODUCTION - NATURAL RESOURCES, RENEWABLE, & NONRENEWABLE

If this is the first activity of the day, introduce yourself and the agency/organization you represent. Briefly discuss what you do and how it correlates with this particular lesson.

Instructor Dialogue Example: Good Morning! My name is Jane. I work for XYZ Soil and Water Conservation District. We protect and preserve the natural resources of XYZ County.

Student Question: What is a natural resource? *Answer: A natural resource is a material or thing that occurs naturally, it comes from the earth and has value.* **Student Question: What are some examples of natural resources?** *Answer: Water, Animals, Plants (Flowers, Trees, etc.), Soil, Land, Minerals, Air.*

Today we will learn about two types of natural resources. All natural resources can be categorized as RENEWABLE or NONRENEWABLE.

Student Question: What is a renewable resource? *Answer: A renewable resource is used to benefit people and it can re-grow or be replaced within a person's lifespan.*

Student Question: What is a nonrenewable natural resource? *Answer: A nonrenewable resource has a limited supply or fixed amount and can not be re-grown or replaced.*

The difference between the two kinds of natural resources has to do with where they come from, or their source of origin. For example, your shirt and jeans are probably made from cotton, which comes from a plant. Farmers harvest their cotton crop every year, but the plants will always grow back. In contrast, the gasoline in the family car comes from oil that is drilled out of the earth. Since there is only so much oil that we can use and the earth cannot replace the oil we know that gasoline is made from a nonrenewable resource.

Draw a T-chart on the whiteboard/chalkboard or ask students to draw a T-chart on a piece of notebook paper. Ask students to list renewable and nonrenewable resources based on the definitions just discussed.

Natural Resources	
Renewable	Nonrenewable
Trees	Fossil Fuels (coal, oil, natural gas)
Animals	Rocks & Minerals
Air	
Sun Energy	
Wind Energy	
Plants	

PART II: "IT'S GOT TO COME FROM SOMEWHERE" ACTIVITY

- Read aloud the poem by Carmen Agra Deedy. Ask students to think about what this poem means.
*Everything comes from something,
Nothing comes from nothing,
Just like paper comes from trees.
And glass comes from sand.*
- *Renewable and nonrenewable resources are used to make products that we use everyday. Just look around the classroom. Let's name 3 objects found in the classroom that came from a renewable or nonrenewable resource. (Examples: Pencil, Paper, Furniture - all from Trees; Metal File Cabinet, Metal Chairs/Desks - all from Rocks & Minerals; Etc.)*
- *Each of you are going to participate in an activity that highlights the process of taking a renewable or nonrenewable resource and turning that resource into a product used in our daily lives.*

ACTIVITY INSTRUCTIONS

- 1) Set-up the machine by placing 4-6 chairs with the seats facing in and drape the sheet over the chairs. Secure with clips. Place the labeled boxes/bowls with the household object cards on the seats of the chairs.
- 2) If possible, ask students to sit in a circle near the machine. If in a classroom setting, ask students to remain seated at their desk. Give each student a natural resource card.
- 3) If possible, have the students form a line, facing the machine's entrance. Explain that each student will enter the machine as a natural resource - animal, petroleum, rock/mineral, or plant - depending on the natural resource card each was given. One at a time students will enter the machine, while inside they should quickly choose a household object card from the labeled box/bowl that corresponds to their natural resource card. (Note: Natural resource cards and household items are color coded.) Students will then exit the machine as a manufactured product. Students should return to the circle or their desk.
- 4) Ask students the difference between "renewable" and "nonrenewable" resources.
- 5) Go around the circle and individually ask students to share the name of their household items with the entire class. Ask the following questions:
 - a.) What natural resource is used to make this household item - Animal, Plant, Soil/Mineral, or Petroleum?
 - b.) Is the natural resource used to make your object a "renewable" or "nonrenewable" resource?Continue until all students have had the opportunity to share their item.

PART III: REDUCE, REUSE, and RECYCLE (Optional Section: Proceed if time permits.)

- *Reducing, Reusing, and Recycling can help preserve our natural resources, regardless of whether they are renewable or nonrenewable.*
- **Student Question: What does it mean to "REDUCE"? Give examples.** *Answer: Definition #1: decrease the amount of the earth's resources used in the production of objects/products that are not essential. Definition #2: means to decrease the amount of materials that one uses. Examples: Use fewer paper towels when drying one's hands; Drink water in a glass from the tap, as opposed to buying bottled water; Do not get plastic bags from the grocery store, take your own bags with you; Walk instead of drive or take public transportation instead of drive, Etc.*
- **Student Question: What does it mean to "REUSE"? Give examples.** *Answer: It means to find another purpose for an item beyond its intended use. Rather than just throw an item away, find another use for the item. Examples: Give clothes away that are now too small for you to someone else that they will fit; Have a yard sale to get rid of items that are no longer used by your family; Taking an old boot and turning it in to a flower pot; Take an old barn and turn it into rustic furniture, etc.*
- **Student Question: What does it mean to "RECYCLE"? Answer: Recycling is a series of activities that includes the collection of used, reused, or unused items that would otherwise be considered waste, sorting and processing the recyclable products into raw materials, and remanufacturing the recycled raw materials into new products.**
- "It's Got To Come From Somewhere" Activity Step #6: Start around the circle again asking students to recall the object/product they represent and share w/ the students in the circle. Ask the following questions:
 - a.) Could we reduce the amount of the object used?
 - b.) Is the object used just once and then thrown away? Could the object be reused?
 - c.) Is the object recyclable?

CONCLUSION Close w/ the following review questions:

- What is one clothing item made from a renewable resource? *Blue Jeans, Cotton T-shirt, Leather Jacket, etc.*
- What is one household item made from a nonrenewable resource? *Clothing from polyester/nylon from oil; Brick, Cement from minerals; Plastic from oil; Glass from minerals; Metal from minerals*

ADDITIONAL INFORMATION

Products made from Renewable Resources

- Clothing - from cotton or leather
- Food - meat, dairy, grains, fruit, etc.
- Furniture, Paper, Wood-cased pencils, Rayon Cloth, Rubber, Bark Mulch, Sawdust for fuel, Animal Bedding Particle Board, Medicine - All from trees
- Solar power - Sun
- Wind power - Air

Products made from Nonrenewable Resources

- Clothing - from polyester/nylon from oil
- Brick, Cement - from minerals
- Plastic - made from petroleum
- Glass - from minerals
- Metal - from minerals
- Home Heating Sources - Natural Gas, Coal
- Coal that

Recyclable, But Not Renewable Products

- Aluminum Cans
- Glass Bottles