

Name:

Science

## Lesson 39 8<sup>th</sup> - NTI Day 9

### Natural Resources

Everything we need or desire, like soil, water, energy, minerals, and even plant and animal life, come from nature. These are what we call **natural resources**. However, we've been using these resources more rapidly than they can replenish. Some of these, like soil and minerals, take thousands of years to form and are known as **nonrenewable resources** - once they're used up, they're gone for good. On the other hand, **renewable resources** are those that can be replaced as they are used up. Then there are also **reusable resources**, which are natural resources that can be used more than once, provided they aren't polluted.

Our Earth's soil, which is made up of decomposed rock, water, air, bacteria, and decayed plants and animals, is classified as a nonrenewable resource. But sadly, human activities like landfilling garbage, over-planting without crop rotation, the use of chemicals on the soil, overgrazing by farm animals, and extensive deforestation are damaging this precious resource.

We use **energy** in many forms, including heat, light, mechanical, electrical, chemical, and nuclear energy, in our daily activities from walking, cooking, to even launching astronauts into space. The primary sources of this energy are nonrenewable resources like oil, natural gas, coal, and uranium. These resources, which scientists believe took millions of years to form, provide electricity for our homes, schools, businesses, and factories. They also give us gas, propane, and diesel fuel for transportation, heating, and cooking.

However, there are also renewable energy sources like solar, wind, geothermal (from Earth's interior), biomass (from plants), and hydropower (from water). We use these alternative forms of energy for heating and generating electricity.

**Water**, a resource that can be replenished and purified through the water cycle, is classified as a reusable resource. Our Earth's oceans serve as a significant resource, providing food, minerals, fossil fuels, and water.

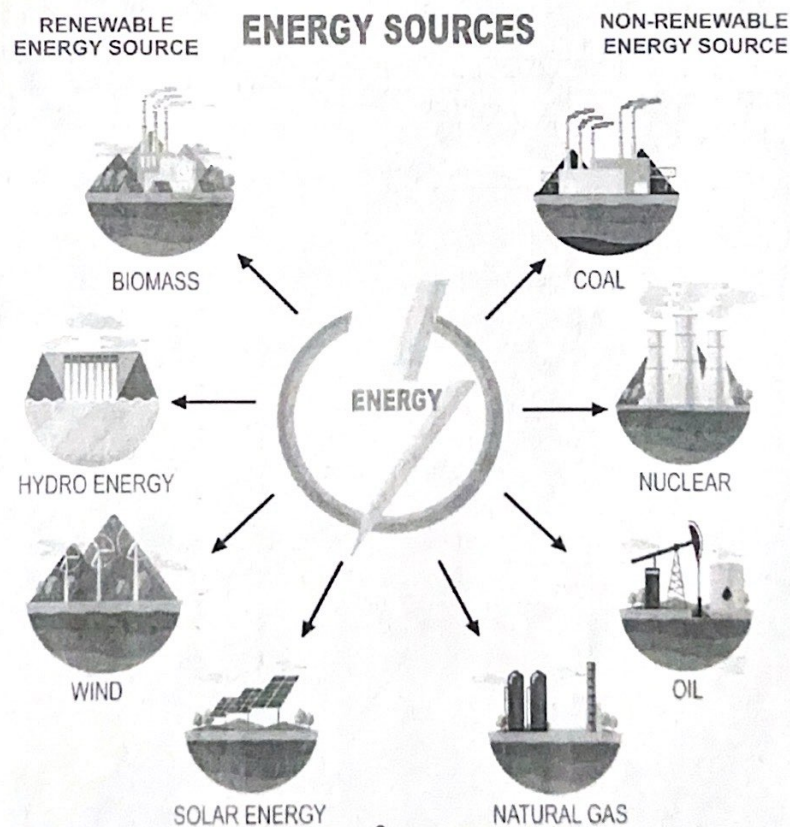
**Desalination** processes convert seawater into useful freshwater by removing salt and other impurities. Additionally, **groundwater** that seeps into the earth from precipitation supplies the majority of our freshwater needs.

But even water can become too polluted for use due to air and ground chemicals that precipitation picks up, causing runoffs into our lakes, rivers, and streams. Factories that unlawfully dump waste into water bodies also contribute to this pollution problem.

**Forests** are seen as a renewable resource only if we replace the trees we use at the same rate. They provide lumber, paper, cardboard, tar, turpentine, food, and are essential for most animal habitats.

**Plants and animals** are precious renewable resources, providing food, clothing, homes, medicine, and numerous other products. Photosynthesis in plants plays a crucial role in generating oxygen and filtering the air we breathe. But with their habitats being destroyed, many plants and animals are disappearing. Today, around 20,000 species of birds, mammals, invertebrates, and plants are on the brink of extinction.

Government bodies worldwide have enacted laws to protect these natural resources. We all can contribute to this cause by **conserving** these resources. The three R's - **reduce, reuse, and recycle** - can significantly aid in this effort. Reducing means cutting back on the use of resources and using them wisely. Reusing involves not discarding items that can be used again, saving resources required to make new products. Recycling includes using existing products to create other products, further conserving our resources.



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1. What is the definition of natural resources?

- A. Things people make in factories
- B. Things people buy from stores
- C. Useful things from nature that people need or want
- D. The money that people earn from their jobs

2. Which of the following is considered a nonrenewable resource?

- A. Wind energy
- B. Soil
- C. Solar energy
- D. Water

3. What kind of energy comes from plants?

- A. Biomass energy
- B. Nuclear energy
- C. Mechanical energy
- D. Chemical energy

4. Why is water considered a reusable resource?

- A. Because we can drink it
- B. Because it can be replenished and purified through the water cycle
- C. Because it is blue
- D. Because it is wet

5. What happens during desalination?

- A. Ocean water is turned into fresh water by removing salt
- B. Dirty water is cleaned by adding chemicals
- C. Sea creatures are removed from the water
- D. Water is heated until it turns into steam

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6. What does **reduce** mean in the context of conserving resources?
- A. To use resources wisely and cut back on their use
  - B. To throw away items that can be used over again
  - C. To make new products from existing products
  - D. To plant more trees
7. How can forests be considered a renewable resource?
- A. If we don't cut down trees
  - B. If trees are replaced at the same rate they are used
  - C. If animals live in them
  - D. If they are located near a river
8. What is a key role of photosynthesis for humans?
- A. It provides a fun science project
  - B. It helps people to learn about plants
  - C. It provides oxygen and filters the air we breathe
  - D. It allows plants to move
9. What type of resource is water considered to be?
- A. Nonrenewable
  - B. Renewable
  - C. Reusable
  - D. Irreplaceable
10. Why are many species of birds, mammals, invertebrates, and plants in danger of extinction?
- A. Because they are not strong enough
  - B. Because people are destroying their habitats
  - C. Because they don't have enough food
  - D. Because they are getting old