

# Earth's Systems: Natural resources

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Water, a renewable resource, gushes from a spring in Brazil. Photo by: Jonathan Wilkins.

A natural resource is any material, substance or living creature found in nature that is useful to people. Some natural resources are necessary for life. Others keep our homes and businesses running. Familiar natural resources include air, water, soil, wildlife, forests, minerals and fossil fuels.

Most natural resources are not spread evenly around the planet. For example, some areas have plenty of water. Other places may go through long periods without rain. Countries that are rich in natural resources have a huge advantage. They can sell their resources to other countries. For example, countries with large forests sell a lot of wood and paper.

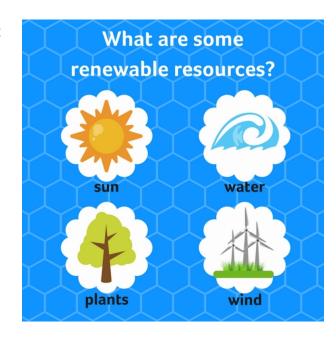
Natural resources are described as either renewable or nonrenewable. This is based on whether they can be replaced in nature after they are used. Wood is an example of a renewable resource. After a tree is cut down, a new tree can be planted. Metals, however, are nonrenewable resources. When a metal such as copper is mined, it cannot be replaced.

## Renewable Resources

A renewable resource is a natural resource that cannot be used up. Air, water and soil are renewable resources. Plants and animals are two more examples.

Nearly all living things need air. Luckily, there is a limitless supply of it! The Earth's atmosphere, the cloud of gases around the planet, is made up of air. However, air quality is a problem in many parts of the world due to pollution.

Water is one of the most important natural resources. All living things need fresh water to live. Most animals can live for weeks without food, but only days without water. Only about 3 percent of Earth's water is fresh water. Fresh water is not evenly spread around the world. Getting enough fresh water is a serious



problem in many places. Water pollution affects the whole world, even areas with a hearty water supply. So, while water is a renewable resource, the supply of fresh water is limited in some places.

Salt water cannot be used for drinking. It is still an important natural resource, though. Salt water is an important part of the ecosystem in oceans and wetlands, and in estuaries — places where a river meets the sea.

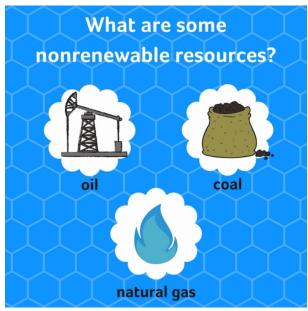
Like air and water, soil is necessary for life on Earth. Soil provides water and nutrition for plants and other beings that live in the soil, such as bacteria, worms and fungi. Soil also helps remove and break down wastes.

Plants and animals are also renewable resources. Living things reproduce, or make babies. These replace older plants and animals. But human activities such as hunting, logging, building and polluting can cause whole groups of living things to disappear forever.

### Nonrenewable Resources

Nonrenewable resources are natural resources that cannot be replaced after they are used. This means that there is a fixed amount on Earth. Rock, minerals and metals are all nonrenewable resources. So are fossil fuels such as petroleum, coal and natural gas.

Fossil fuels have an interesting past. They formed from the buried remains, or fossils, of ancient plants and animals over millions of years. Coal and liquid petroleum (oil) are used for electricity in power plants around the world. Oil and gasoline provide fuel for cars. Petroleum is used to make plastics, medicines and other products. Natural gas is used for heating and cooking.



Rocks, minerals and metals are found within Earth's crust. Rocks provide materials for building homes and roads. Minerals and metals are used for

making products. They are used in paints, pipes and computer chips, to name a few.

## **What Humans Do To Natural Resources**

Many people fear that humans are destroying the world's natural resources. Clearing trees for farming wipes out forests and the animals that live there. Cars and factories use huge amounts of oil every day. They also release poisonous chemicals that pollute the air, water and soil. Many people are working to protect natural resources. In addition, scientists are working on ways to produce energy and goods without harming or using up these important resources.



#### Quiz

1 Read the section "Renewable Resources."

Select the paragraph that mentions a renewable resource that is not plentiful enough everywhere.

- (A) A renewable resource is a natural resource that cannot be used up. Air, water and soil are renewable resources. Plants and animals are two more examples.
- (B) Nearly all living things need air. Luckily, there is a limitless supply of it! The Earth's atmosphere, the cloud of gases around the planet, is made up of air. However, air quality is a problem in many parts of the world due to pollution.
- (C) Water is one of the most important natural resources. All living things need fresh water to live. Most animals can live for weeks without food, but only days without water. Only about 3 percent of Earth's water is fresh water. Fresh water is not evenly spread around the world. Getting enough fresh water is a serious problem in many places. Water pollution affects the whole world, even areas with a hearty water supply. So, while water is a renewable resource, the supply of fresh water is limited in some places.
- (D) Salt water cannot be used for drinking. It is still an important natural resource, though. Salt water is an important part of the ecosystem in oceans and wetlands, and in estuaries places where a river meets the sea.
- 2 Read the selection from the section "Nonrenewable Resources."

Fossil fuels have an interesting past. They formed from the buried remains, or fossils, of ancient plants and animals over millions of years. Coal and liquid petroleum (oil) are used for electricity in power plants around the world. Oil and gasoline provide fuel for cars. Petroleum is used to make plastics, medicines and other products. Natural gas is used for heating and cooking.

Which sentence from this selection BEST supports the conclusion that fossil fuels cannot be easily replaced once they have been used up?

- (A) Fossil fuels have an interesting past.
- (B) They formed from the buried remains, or fossils, of ancient plants and animals over millions of years.
- (C) Coal and liquid petroleum (oil) are used for electricity in power plants around the world.
- (D) Petroleum is used to make plastics, medicines and other products.
- 3 Read the summary of the article below.

Natural resources are found in nature and used by humans for many things. Renewable resources never run out and include air, water and soil. On the other hand, oil, rocks and metals are nonrenewable resources that can be used up.

Which option below would BEST complete the summary?

- (A) People use minerals and metals for products such as paints, pipes and computer chips.
- (B) However, people are harming both renewable and nonrenewable resources.
- (C) Fossil fuels were produced millions of years ago from plants and animals.
- (D) People are wiping out forests for farming and causing problems for animals that live there.

4 Read the following detail from the article.

Some natural resources are necessary for life. Others keep our homes and businesses running.

HOW does this detail develop the central idea of the article?

- (A) It explains how humans are destroying natural resources.
- (B) It shows what types of natural resources are used in homes and in businesses.
- (C) It highlights the most familiar and useful natural resources used by humans.
- (D) It gives the main reasons why natural resources are important to humans.