



Earth:

Earth is the only planet that has life on it because it has:

- ❖ Land.
- ❖ Water.
- ❖ Surrounded by air.

Students' Learning Outcomes

Recognize that Earth's surface is made up of land and water and is surrounded by air.

Land: Land area covers 29% of Earth. It consists of:



Water: Water area covers 71%. It consists of:



Air: The Earth is also surrounded by a layer of air called the atmosphere. This air is important for breathing and for weather.

It consist of different gases, such as nitrogen, oxygen, carbon dioxide, argon etc.

Among all of these, *oxygen* is used for breathing.

Major gases in air	
Gases	Percentage
Nitrogen	78 %
Oxygen	21 %
Carbon dioxide	0.03 %





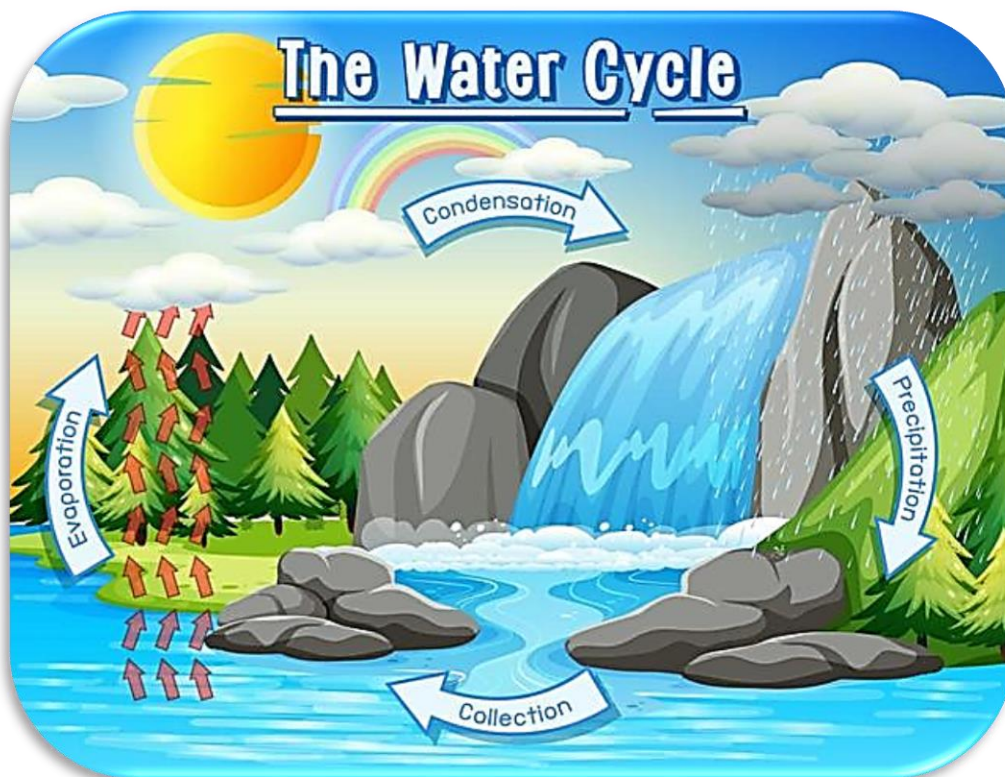
Water cycle:

*“Water moves continuously with in earth and atmosphere.
This is called water cycle.”*

Students’ Learning Outcomes

Recognize that water in rivers and streams flows from mountains to oceans or lakes.

- ❖ Water in the form of snow and rain falls down from sky to earth. This is called **precipitation**.
- ❖ Water is also found in glaciers and ice caps on mountains. During summers, this frozen water melts and moves down hills in the form of streams and rivers.
- ❖ Water always flows from higher area to lower area.
- ❖ This flowing water joins another stream, lake or river and ultimately reaches an ocean. This is called **collection** of water.
- ❖ Water evaporates from the surface of water bodies in the form of vapors, called **evaporation**.
- ❖ These vapours form clouds high in the mountains due to **condensation**.





Natural resources:

Natural resources are the materials found naturally on Earth and are beneficial for mankind. They are of two types:

- Renewable resources
- Non-renewable resources

Students' Learning Outcomes

Differentiate between renewable and non-renewable resources.

Renewable resources	Non-renewable
<p>Renewable resources can be renewed or replenished in a short time.</p> <p>For example:</p> <ul style="list-style-type: none"> ● Air ● Water ● Soil ● Solar energy 	<p>Non-renewable resources take millions of years to form once they are used.</p> <p>For example:</p> <ul style="list-style-type: none"> ● Minerals ● Coal ● Oil ● Natural gas
<p>Renewable resource</p>	<p>NUCLEAR</p> <p>GAS</p> <p>OIL</p> <p>COAL</p> <p>ENERGY</p>



Uses of natural resources:

All these natural resources are used by humans for different activities.

Students' Learning Outcomes

Identify some of Earth's natural resources that are used in everyday life (e.g water, wind, soil, forests, oil, natural gas and mineral).

Water: Essential for drinking, cooking, cleaning, agriculture, and industry.



Washing



Drinking



Cooking



Wind: Wind is used to generate electricity through wind turbines.

Soil: Provides nutrients for growing food crops and plants.



Forests: Provide wood for building materials, paper products, and habitat for wildlife.

Oil: Oil is used as a source of energy for transportation, heating, and manufacturing.



Natural Gas: It is used for heating homes, cooking, generating electricity, and as a fuel for vehicles.



Fossils:

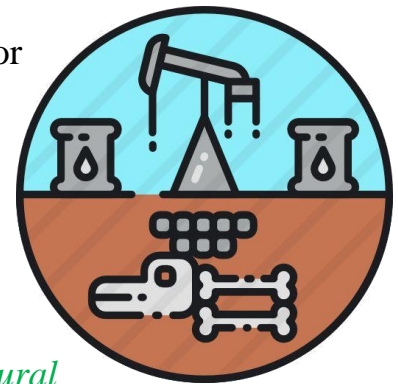
Fossils are the remains of plants and animals that lived long time ago.

For example, dinosaurs were alive on Earth about 200 million years ago. Scientist found their fossils and studied about them.

Students' Learning Outcomes

Recognize that some remains (fossils) of animals and plants that lived a long time ago are rare found in rocks, soil and under the sea.

- ❖ Many plants and animals got buried under the soil, rocks or even the sea.
- ❖ These dead organisms changes into fossils after millions of years.



Fossil fuels:

These remains ultimately change into fuels like coal, oil and natural gas. These fuels are called fossil fuels.

- ❖ Fossils change into fossil fuels under high temperature and pressure.
- ❖ They are very useful, because they provide us energy.





Human activities and natural resources:

Natural resources are things we get from nature that are useful to us.

For example, water, air, plants animals etc.

Students' Learning Outcomes

Investigate the impact of human activities on Earth's natural resources.

Sometimes, the way we use natural resources can have negative effects:

Water Pollution: When we dump trash or chemicals into rivers and oceans, it makes the water dirty and unsafe for animals and people.

Deforestation: Cutting down trees to build things or grow crops can harm animals that live in forests.

Overfishing: Catching too many fish can reduce fish populations and disrupt ocean ecosystems.

Mining: Digging for minerals can damage the land and pollute water sources.

Air Pollution: Burning fossil fuels like coal and oil releases pollutants into the air, which can harm plants, animals, and people.

Note: All these human activities are destroying our planet earth. Earth is our home. We are exploiting its resources. If this exploitation continued, earth will not be safe for humans.





Ways to conserve natural resources:

Natural resources are very important for living organisms. We need to use them carefully. If we shall not use them carefully, they will be diminished in near future. We can help to protect natural resources by:

Students' Learning Outcomes

Suggest the ways to conserve the natural resources.



Conserving Water: Turn off the tap while brushing your teeth and fix leaks.



Reducing Waste: Recycle and reuse items instead of throwing them away.



Saving Energy: Turn off lights and unplug devices when you are not using them.



Protecting Nature: Participate in clean-up activities and support conservation efforts.