

RESOURCES

A **natural resource** is anything found in nature that humans use. We sometimes call these **raw materials** because they come directly from the planet. People convert raw materials into things they need or use.

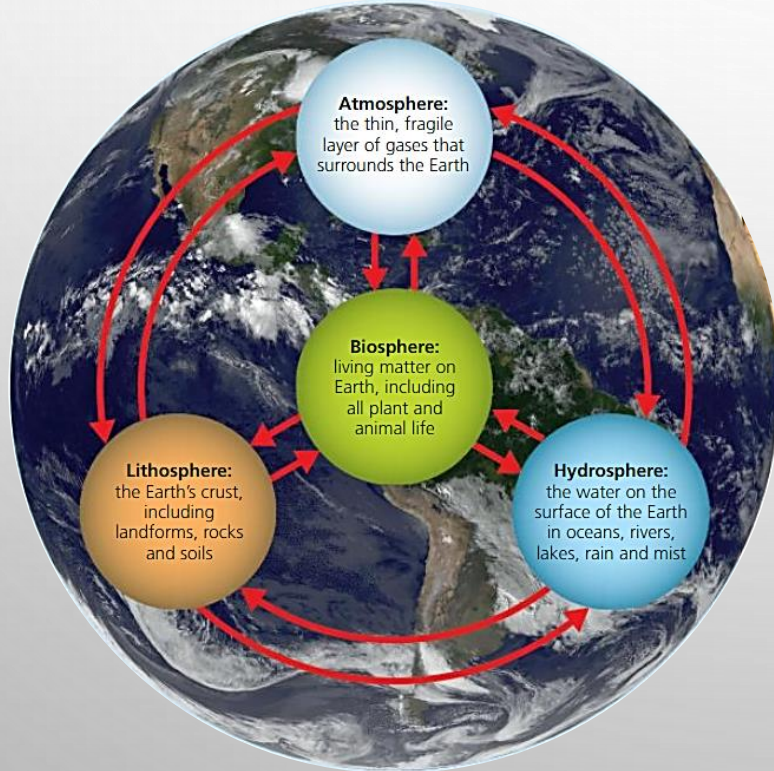
Some resources take a longer time to be replaced. Oil takes millions of years to be created within the Earth's crust. Trees can grow within our lifetime.

❑ **Renewable resources** are those that can be replaced by Earth's natural processes within an average human lifetime

Wind, air, water, sunlight and living things

❑ **Non-renewable resources** cannot be replaced in a short period of time.

Oil, gas, coal



There are three categories of rocks:

1. **Igneous** – formed by cooling molten magma.
2. **Sedimentary** – formed by compaction and cementation of sediments.
3. **Metamorphic** – alteration of existing rocks by heat and pressure.

Rock type	Formation	Characteristics	Examples	Photo
Igneous	Formed by the cooling of molten magma either underground (intrusive) or on the ground (extrusive) by volcanic activity.	These rocks are composed of interlocking crystals (they are said to be crystalline). They are generally tough rocks and are resistant to erosion.	Basalt, andesite and rhyolite are examples of the extrusive lavas. Granite, gabbro and dolerite are intrusive rocks	
Sedimentary	Formed by the compaction and cementation of sediments; usually deposited in the seas. Also includes organic material (e.g. coal) and rocks precipitated from solutions (e.g. limestone).	These rocks usually form layers called beds. They often contain fossils. Although some rocks can be tough (e.g. limestone), most are weaker than the other two types of rocks.	Common rocks include sandstone, limestone, shale, clay and mudstone. The rock chalk is a form of limestone.	
Metamorphic	Formed by the alteration of pre-existing igneous, sedimentary or metamorphic rocks by heat and/or pressure.	These rocks are also crystalline. They often exhibit layering (not beds) called cleavage (as with the rock slate) and banding. These rocks tend to be very tough and resistant to erosion.	Slate is one of the most common rocks. Other rocks include gneiss (pronounced 'nice') and schist.	

What is a fossil fuel?

A natural fuel formed in the geological past from the remains of living organisms
(Examples include coal, oil and gas)



Why are they controversial?

Fossil fuels are not green sources of energy. In fact, they contain high amounts of carbon and have been blamed for being the main contributor to global warming. Fossil fuels are non-renewable energy sources. This means that there is a finite amount of fossil fuels available.



What are the alternatives to Fossil Fuels?

Solar power



H.E.P



Wind Power



No harmful polluting gases are produced as it just relies on the sun.

Solar cells do not work at night.

Tidal barrages and hydroelectric power stations are very reliable and can be easily switched on.

Hydroelectricity dams flood farmland and push people from their homes.

No harmful polluting gases are produced as wind simply turns the blades of the turbine.

If there is no wind, there is no electricity.

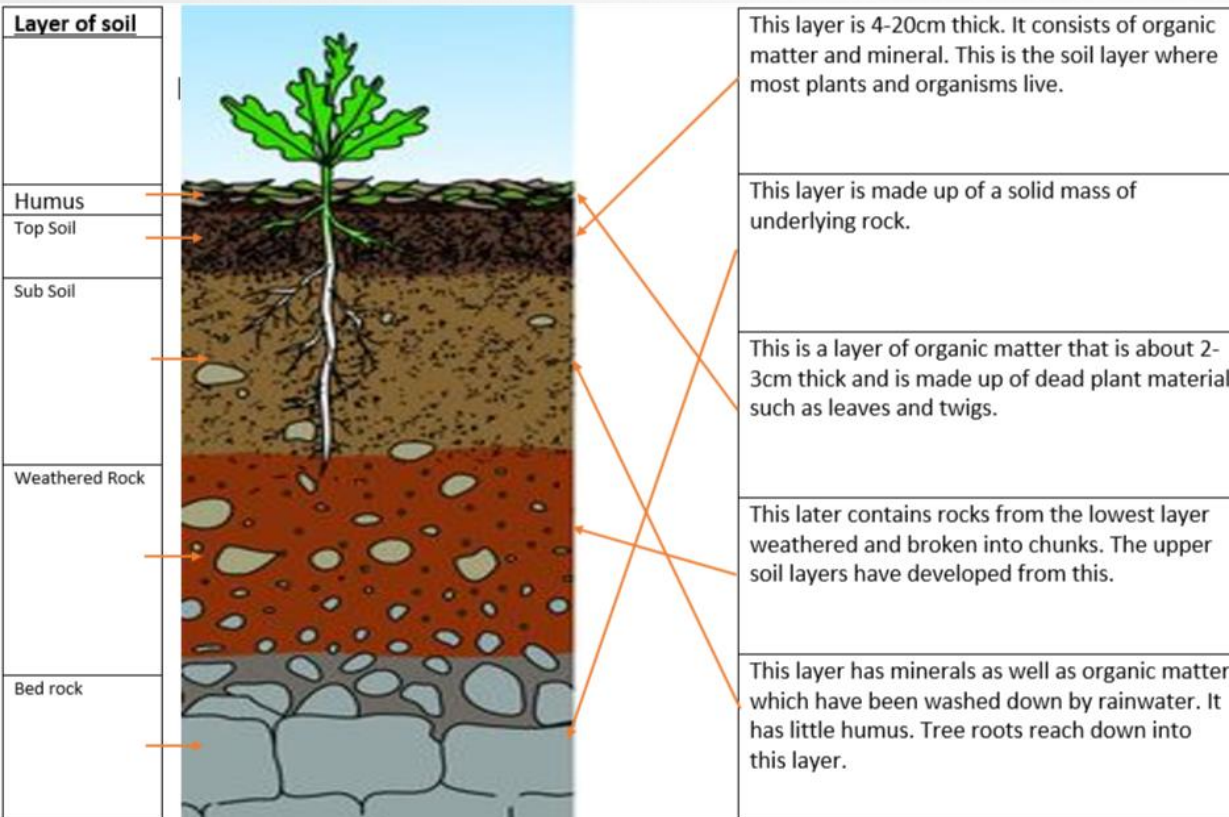
What is Soil?

A thin layer on the Earth's surface between the lithosphere and biosphere. It is composed of minerals, water and decaying vegetation.

Soil is alive with organisms, like fungi, bacteria, insects and earthworms and burrowing animals that all have a role to play in developing the soil. It is vital for all life on Earth.



The average person uses 150 litres of water and this is how it is used:

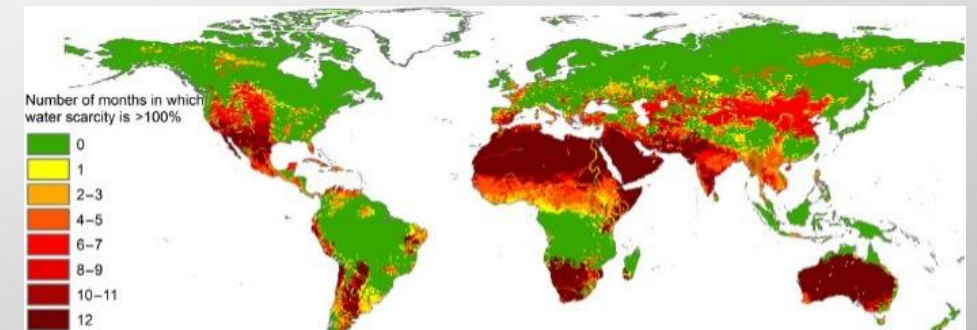


Tropical Rainforests provide:

Food - rainforests can produce food such as nuts, which forms part of the diet of local people in the Amazon. They can export other things like bananas and coffee to make money.

Medicines - rainforests have also been used to search for medicines.

Raw materials - rainforests produce timber such as hardwoods for garden furniture exports.



97.5% of the Earth's water is salt water which cannot be consumed without treatment. This means that 2.5% is shared between the world's population.

However, it is not spread out evenly. The dark red countries experience many days without water – this is called water stress.