

Key Words

- 1. Biological Weathering:** when rocks are weakened and broken down by plants, animals and microbes.
- 2. Biome:** a large community (large ecosystem) of plants and animals found in a major habitat such as rainforests, tundra, etc.
- 3. Chemical weathering:** when rocks and materials are weakened and eroded by chemical reactions from substances dissolved in water (such as salts, acids, etc)
- 4. Clay:** A type of rock that is very sticky, fine-grained and stiff, which can be shaped and moulded when it is wet, is very slippery when wet, but can be dried and baked (For bricks or pottery.)
- 5. Crude oil:** naturally occurring and unrefined petroleum that can be refined into diesel, petrol, gasoline, kerosene, and other petrochemicals.
- 6. Fossil fuel:** A natural hydrocarbon fuel such as petroleum, coal or natural gas, which is formed by the fossilised (preserved) remains of ancient plants and animals that are deposited over millions of years.
- 7. Geologists:** expert scientists who study the structure of the Earth and its rocks.
- 8. Freeze- thaw weathering:** when rocks are broken down and weakened when water seeps into cracks then freezes and expands, which breaks rocks apart over time.
- 9. Impermeable:** when materials cannot let liquids in, are water resistant.
- 10. Industrial revolution:** a period of time when places became heavily industrialised, relying on machines for agriculture or transport or manufacturing, such as in the UK during the late 1700s and early 1800s when innovations saw machinery and factories appear rapidly across the nation.
- 11. Natural resources:** substances that are found in nature which can be used by humans for our benefit, such as water, soil, coal, minerals, wood, animals, etc.
- 12. Non- Renewable:** substances which are limited and so will run out one day and cannot be replaced during our lifetime such as natural gas and coal.
- 13. Porous:** when materials such as rocks have small pores (holes) which allow liquids or air to pass in and out.
- 14. Raw materials:** the basic materials or substances from which products can be made, such as wood can be transformed into furniture, etc.
- 15. Renewable:** resources that can be replaced over time, and will not run out, such as water, wind, forests etc.
- 16. Sustainability:** when materials and resources are used in a way that will balance the needs of the present without compromising the future. The ability to maintain something such as economic growth.
- 17. Water security:** a lack of freshwater resources available to meet the demands of water use in an area.

Are we using too many natural resources?

18. Renewable energy:

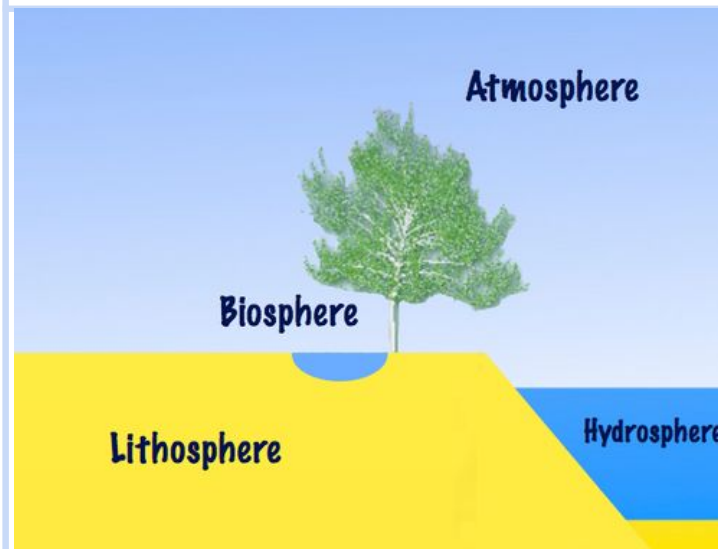
Renewable energy can be generated in various ways, these include:

- **Solar power:** Converting the sun's energy into electricity.
- **Wind power:** The wind turns large turbine blades generating electricity.
- **Hydroelectric power:** Fast flowing water turns generators to produce electricity.
- **Geothermal energy:** Uses heat produced from the Earth's crust to heat water and produce steam.

19. Non- Renewable energy:

Burning non renewables pollute the atmosphere, the reserves are also running out.

- **Oil:** Oil is used to fuel cars, ships and planes. It also is used to generate electricity. The crude oil from the ground must be refined into usable products.
- **Coal:** Coal is burnt to produce energy in coal-fired power stations and factories.
- **Natural gas:** Burnt to produce heat, used in boilers and cookers.



20. Biomes and natural resources.

The world's biomes produce natural resources. The rainforest produces natural resources in 4 categories:

- 1. Food:** Bananas, avocados, cashews, brazil nuts, vanilla, sugar, coffee, tea and cocoa all come from rainforests.
- 2. Medicine:** Many of our medicines are derived from plants found in the rainforest. This includes the treatment for diabetes.
- 3. Timber:** Tropical hardwoods are used for furniture and sculpture.
- 4. Cosmetics:** Tropical oils are used in shampoos and lotions.

21. Rocks as a natural resource:

We use rocks for building purposes: houses are made from bricks, which are made from fired clay. Rooves are made from slate and cement is made from sand and chalk.

Coal is also a rock, formed millions of years ago from dead plant material in swamps. Coal is used for energy (by burning) and was used in the industrial revolution for steam – powered machines.

Rocks are extracted in a quarry.

Types of rocks

22. Igneous

Formed of molten rock. The rock may cool slowly, allowing time for minerals to form large crystals which lock together. This means that igneous rock can contain important minerals like diamonds! They are hard and durable, so are often used in buildings and to surface roads.

23. Sedimentary

Formed under the sea. Rock particles carried by rivers get washed out into the sea. These particles settle on the sea floor and are buried by layers of new sediment, this squeezes and cements them together over thousands of years. These rocks often contain fossils. They sometimes contain coal and iron ore.

24. Metamorphic

Transform from existing rocks due to great heat or pressure. This change melts the existing minerals and forms new minerals. The sedimentary rock limestone is transformed into marble in this way and can be used for buildings or sculptures.