

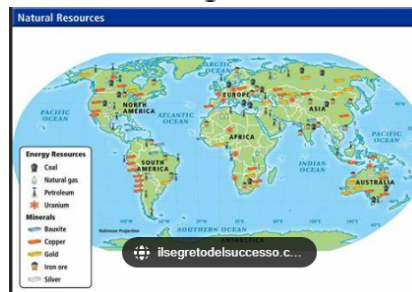
Geography Subject Knowledge Bank

Year 5: Natural Resources & energy- Why are they important?

<u>Vocabulary</u>	<u>Definition</u>
natural resources	Materials created in nature that humans can use
extract	To remove or take out
energy	The ability to do work
minerals	Resources that have not come from plants or animals
renewable & non-renewable	resources that can/cannot be depleted
food miles	How far the food has come from produce to consumer.

What is a carbon footprint?

- A carbon footprint is a measurement of how much energy someone uses.



What are natural resources?

- Materials or substances that exist without any interaction with human beings, are **natural resources**.
- We will extract or capture these resources and convert them into energy, that powers our homes and schools.
- A natural resource is anything that people use that comes from nature.
- Some of these are:
- Freshwater, air, fossil fuels, metals, minerals, soil, wood
- Natural resources are distributed on the Earth unevenly, which means that there are different amounts of them in different places.
- Humans need natural resources to survive. Many of the natural resources are used to produce energy.

What are renewable and non-renewable resources?

- Some natural resources are limited, which means they will run out at some point.
- Other natural resources can be replaced, and we call them renewable.
- Nuclear energy is used in nuclear power plants to create heat and then electricity. The metal that is used during the process is a limited resource.
- The need for natural resources and energy is increasing. To protect the Earth, people are exploring new, more *sustainable* ways of sourcing energy.

Where are mineral resources found?

- **Oil-** There is an uneven distribution of oil resources around the world, with the majority of oil reserves being found in the Middle East, in countries such as Saudi Arabia, Iraq and Iran. Other key countries include Venezuela, Russia and Nigeria.
- **Gas-** The distribution of gas is slightly different to that of oil. Although the Middle Eastern countries of Iran, Qatar and Saudi Arabia have large reserves of gas, Russia has the largest proven reserves.
- **Coal-** Nearly 75% of all coal reserves are found in only five countries: USA, Russia, China, Australia and India. These countries use a lot of coal and export it around the world for other countries to use. As coal has a damaging environmental impact, many countries are using less and moving towards cleaner energies.

What is the impact of an earthquake?

- Everyone uses energy, but if people used less than it would be possible to reduce the amount needed.
- Energy use can be measured through carbon footprints. A bigger carbon footprint means that more energy is used and therefore more carbon is produced. Carbon footprints consider:
- Goods and products - energy is used to produce goods and so it is better to buy less.
- Transport - walking or using public transport is best, because travelling by car uses petrol or diesel per person. Aeroplanes use much more fuel than other forms of transport.
- Food miles - buying local food can use less energy as food is transported a shorter distance. However, sometimes food grown locally requires a lot of energy to produce because of the bright, warm conditions needed to grow food in huge greenhouses all year round.

