









Climate Change

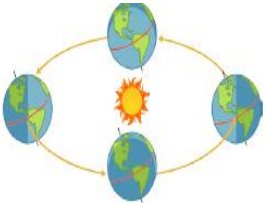
Non-Renewable Resources	
Gas 	This fossil fuel is a mixture of gases which you cannot see, taste or smell. It is burned to create energy, releasing carbon into the atmosphere.
Coal 	Coal was formed millions of years ago from plants. It is a shiny, black rock mined from underground and then burned for energy. It is a fossil fuel that creates air pollution.
Petroleum 	A liquid found underground which we sometimes call oil. Oil can be thick and black or watery. It is burned to create energy, releasing carbon into the atmosphere.
Uranium 	Uranium is a mineral found in rocks underground. We split uranium atoms to release energy in nuclear power plants.
Renewable Resources	
Water 	Dams trap water from seawater at high tide and from rivers. Turbines are turned when the water is released.
Solar 	Solar panels catch energy from the sun's rays and turn it into electricity.
Wind 	Huge wind turbines are placed in areas of strong winds such as marshes or on the top of hills. The wind turns the blades, which creates electricity.
Heat 	Geothermal energy is type of heat energy made and stored in the Earth. Water and/or steam carry the geothermal energy to the Earth's surface.

Possible Causes of Climate Change

There are two types of causes, they are Natural Causes and Human Causes.

Natural Causes

- Volcanic Activity – The ashes can block or reflect the Sun's rays and cause the Earth to cool down.
- Orbital Variation – Some scientists believe that the way the Earth orbits the Sun can change the climate.



Human Causes

- Burning Fossil fuels
- Farming
- Deforestation

Evidence of Climate Change

There are three main pieces of evidence for climate change:

Tree Rings – The rings on the inside of the tree trunk shows how well a tree grows. The thicker the ring the warmer the temperature. A thin ring shows poor growing conditions.

Glaciers – Scientists have monitored the rate at which the glaciers are disappearing. As the Earth has been getting warmer, the glaciers are melting quicker.

Ice Cores – Scientist study the ice cores. Each year a new layer of ice grows and gasses become trapped between the layers. Scientist then use these gases to see what their temperature was when the ice formed.

Key Vocabulary

renewable	a form of energy that will not run out
non-renewable	a form of energy that will one day run out
abundance	when there is plenty of something
scarcity	when there is not much of something
fossil fuels	underground resources that contain carbon
extraction	to remove something from the ground
mining	removal of natural materials from a mine
fracking	injecting liquid into rock to extract oil/gas
conservation	prevention of wasteful use of a resource
pollution	to release a poisonous or harmful substance
recycle	convert waste into a reusable material
global warming	increase in Earth's temperature from pollution

Managing Climate Change

Use alternative energy sources – wind power and solar power.

Plant trees – this increases the amount of Co2 that is absorbed from the atmosphere

Effects of Climate Change

Here are just some of the effects:

- Melting glaciers causes sea levels to rise. This can cause flooding to low-lying areas.
- Change in weather which can then affect crop yields.
- Increased temperatures can cause some animals to become extinct.
- Water shortages can cause people to become ill because of a growth of diseases.