



## Prior Knowledge

- Humans have basic needs that they need to survive: food, water and shelter
- Trees absorb carbon dioxide

# Year 5 – Renewable Energy & Climate Change Knowledge Organiser

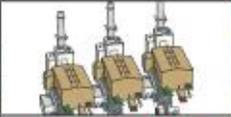


### Fascinating Facts

- ❖ Scientists estimate that since the **Industrial Revolution**, human activity has caused the **Earth** to warm by approximately **1°C**. While that might not sound like much, it means big things for people and wildlife around the globe.
- ❖ Experts believe that the **Arctic sea ice** is melting at a shocking rate - **9%** per decade

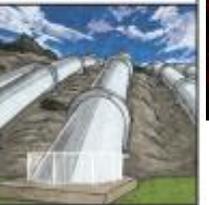
### Types of Power Station

Electricity is made in power stations, transferred via pylons, through wires and into our homes.

Coal	Combined Cycle Gas Turbine (CCGT)	Nuclear	Pumped Storage
- burning coal.	- burning gas.	- uranium atoms split in a process called nuclear fission.	- water in dams used to turn turbines.
			
non-renewable	non-renewable	non-renewable	renewable

### Renewable Energy

Renewable energy is made from resources which nature can replace, it is more environmentally friendly as it does not pollute the air or water.

		
wind power	solar power	hydro-power



**“Never doubt that a small group of thoughtful, committed citizens can change the world. In deed, it is the only thing that ever has.” Margaret Mead**

### Key Vocabulary

Carbon footprint	An estimate of the impact that activities have on climate change
Climate	The average of temperature and precipitation over time
Climate change	Any significant long-term change in the expected patterns of average weather of a region (or the whole Earth) over a significant period of time
Conserve	Use as few resources as possible
Consume	To use, eat or drink something
Fertile land	Land that is rich in nutrients and very good for growing crops
Food miles	The distance an item has travelled from where it was produced to where it was consumed
Fossil fuels	Oil, coal and natural gas.
Global warming	A gradual increase in the overall temperature of the Earth's atmosphere.
Greenhouse gas	Released when fossil fuels are burned and occur naturally in the atmosphere (e.g carbon dioxide and methane)
Import	Buying produces and goods from abroad
Non-renewable energy	A source of energy that will eventually run out as it cannot be made as quickly as it is consumed (e.g coal)
Produced	Where something was made
Renewable energy	Created by resources that nature can replace, such as wind, water, sunlight
Sea level rise	Sea levels rise is an increase in the level of the world's oceans due to the effects of global warming
Solar energy	Energy that comes from the sun, using solar panels to generate electricity
Turbine	An engine that can turn movement into energy
Weather	The day to day changes in the atmosphere