

Global challenges

Big Question: What challenges are we facing in the 21st century?

Key vocabulary	
1	climate change A change in global climate patterns over a long period of time.
2	renewable energy Resources that can be replenished in a human lifetime such as water, wind, sunlight, geothermal heat and plants.
3	non- renewable energy Resources that will eventually run out such as oil, gas and coal.
4	consumption The action of using up a resource.
5	emissions The production and discharge of something into the air eg gas, heat, light
6	biodegradable Substances that decay naturally without damaging the environment.
7	fossil fuels A natural fuel such as coal or gas, formed within the Earth from dead plants and animals over millions of years.
8	sustainable Using resources in a way that maintains their supplies for the future.
9	migration The movement of people from one place to another.
10	refugee A person who must leave their home for their own safety or survival, especially because of war.
11	displaced people People who have had to leave their homes.
12	humanitarian assistance Aid such as food, water, shelter, medicines, sanitation to people who need help.
13	endangered Animals or plants that may not soon exist.
14	sustainable development Economic development without the depletion of natural resources.

Renewable Energy

Solar energy from the sun.



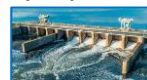
Geothermal energy from heat inside the Earth.



Wind energy



Hydropower from water



Biomass from plants



What causes Climate Change? The Earth's atmosphere surrounds the planet. **Greenhouse gases** in the **atmosphere**, such as water vapour, carbon dioxide and methane let the sun's **radiation** (heat) in. Some of the sun's radiation is **absorbed** by the Earth's surface and warms it and the rest is **reflected** or absorbed by clouds and the atmosphere.

The Earth also releases heat back towards space. Some of this passes through the atmosphere but most of it is captured and kept by greenhouse gases. Without greenhouse gases trapping the heat in, Earth would be very cold and humans would be unable to survive.

However, the more greenhouse gases there are, the more the heat gets trapped which increases the Earth's temperature. This is known as the '**Greenhouse Effect**.' The rise in the planet's temperature is referred to as **global warming**.

Climate change causes **weather patterns** to be unpredictable. This can make it difficult to grow and maintain crops. Climate change is also connected with more **hurricanes**, **flooding** and the **melting** of the **polar ice caps**.

Significant people					Significant places			
Isatou Ceesay	Greta Thunberg	Sir David Attenborough	Malaika Vaz	Wangari Maathai	Turkey	Syria	Ukraine	China
Gambian activist , popularly known as 'The Queen of Recycling.' She began the ' One Plastic Bag ' movement.	17 year old environmental activist famous for her ' Friday for Future ' movement. Global climate crisis activist.	Devoted to informing humanity about the beauty and fragility of the natural world. He has educated many generations.	A young National Geographic explorer and TV presenter from Goa, India. Documentaries explore endangered species across India.	Originally from Kenya, awarded the Nobel Peace Prize in 2004 for her approach to sustainable development , democracy and peace.	Turkey is host to the world's largest refugee population since 2014. Most refugees from poorer countries seek asylum in other poor countries.	Syrian civil war (began 2011). 5.6m Syrians have become refugees. 6.2m have been displaced within Syria. 12m need humanitarian assistance . 50% affected are children.	An ongoing refugee crisis began in Europe in February 2022 when Russia invaded the Ukraine. More than 4.2 million refugees have left the Ukraine (as of 4 th April 2022) and 6.5 million people have been displaced.	Largest population in the world with 1.4 billion people. Fastest growing economy and world's largest CO2 emitter . China emitted 27% of the world's greenhouse gases in 2019
