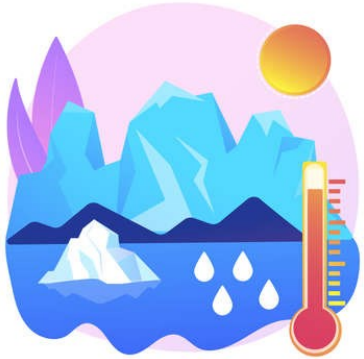
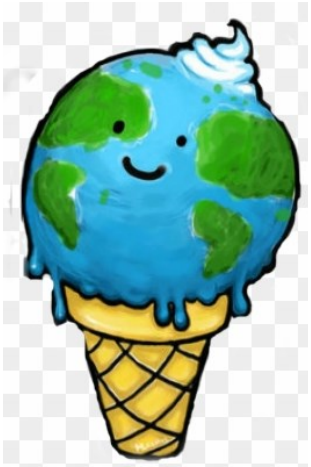
Warmer world!

Maps and Images





Important Facts

Most of the increase in global temperatures since 1950 has been caused by human activity. While there are some causes of climate change that are natural, like volcanic eruptions. However, the main causes of climate change through human activity include: burning fossil fuels, intense farming to produce meat and crops and deforestation.

More recently the earth's climate has been rapidly warming. In 1883, the average temperature was 13.5°C, whereas in 1960 the average temperature had risen to 14.0°C. By 1985, the average temperature had risen to almost 14.4°C.

One of the most well-known effects of global warming is that sea ice and glaciers in the Arctic are melting. In 1910, the Glacier National Park in Montana in the United States was filled with approximately 150 glaciers. When the glaciers were recounted in 2017, this number had dropped to 26. This melting ice will cause rises in sea level, and will increasingly affect people in areas that depend on water from melting glaciers for their drinking water.

Carbon dioxide acts like a greenhouse. It lets the sun's rays through to heat up everything inside the atmosphere, but stops the heat from escaping. This is making our planet warm faster than it naturally would and is causing world climates to change.

Greenhouse gases (including Carbon Dioxide) trap heat in the atmosphere. When the sun passes through the atmosphere, the greenhouse gases absorb the radiation and stop the heat from leaving the atmosphere. This is the greenhouse gas effect. Without greenhouse gases, the average temperature on Earth would be far too cold to sustain life. However, when we add more greenhouse gases to the atmosphere through this causes more of the sun's energy to get trapped in the atmosphere, heating up the Earth.

Average sea level is expected to rise between 0.5 and 1.5 metres before the end of the century. As oceans continue to warm and expand, and land-based ice in Greenland, parts of the Antarctic, and mountain glaciers continue to melt, sea levels will rise.

Vocabulary / Key Terms

Climate	Climate is the average weather conditions in a place for 30 years or more.
Climate change	Climate change refers to the long-term changes in global temperatures and other characteristics of the atmosphere
Natural disasters	Natural disasters are violent events that are outside the control of humans such as hurricanes and tornadoes. They are caused by the forces of nature and may result in loss of life, injury, and damage to properties.
Fossil fuels	Fossil fuels include oil coal, and natural gas. These materials are called fossil fuels because, like fossils, they are the remains of organisms that lived long ago. Organisms are plants, animals, and other living things.
Greenhouse gases	Greenhouse gases are gases in Earth's atmosphere that trap heat. They let sunlight pass through the atmosphere, but they prevent the heat that the sunlight brings from leaving the atmosphere.
Greenhouse effect	The greenhouse effect is a warming of Earth's surface and the air above it. It is caused by gases in the air that trap energy from the Sun.

Useful websites:

https://www.bbc.co.uk/teach/school-radio/assemblies-ks1-ks2-climate-change-global-warming/zbgxjsg

https://www.bbc.co.uk/bitesize/topics/z849q6f/articles/z7dkhbk

https://climatekids.nasa.gov/climate-change-meaning/#:~:text=Credit%3A%20USGS-,Climate%20change%