

Climate Change and Energy



What is climate change?

Climate change is a long-term shift in the planet's weather patterns and average temperatures. More extreme and unpredictable weather is occurring across the world with some places becoming hotter, some places becoming wetter and some places becoming drier. There is overwhelming scientific evidence that climate change is mostly as a result of human action.

Global warming, one of the aspects of climate change, is a gradual increase in the overall temperature of the Earth's atmosphere. If global temperatures continue to increase dramatically this will have catastrophic effects. Recently leading climate scientists have warned of the dangers of an increase in global temperatures by more than 1.5°C. A rise of just 2°C would cause:

- ⇒ Severe storms and flooding, particularly in coastal areas
- ⇒ Droughts affecting many more parts of the world
- ⇒ Widespread species loss, affecting food chains and habitats

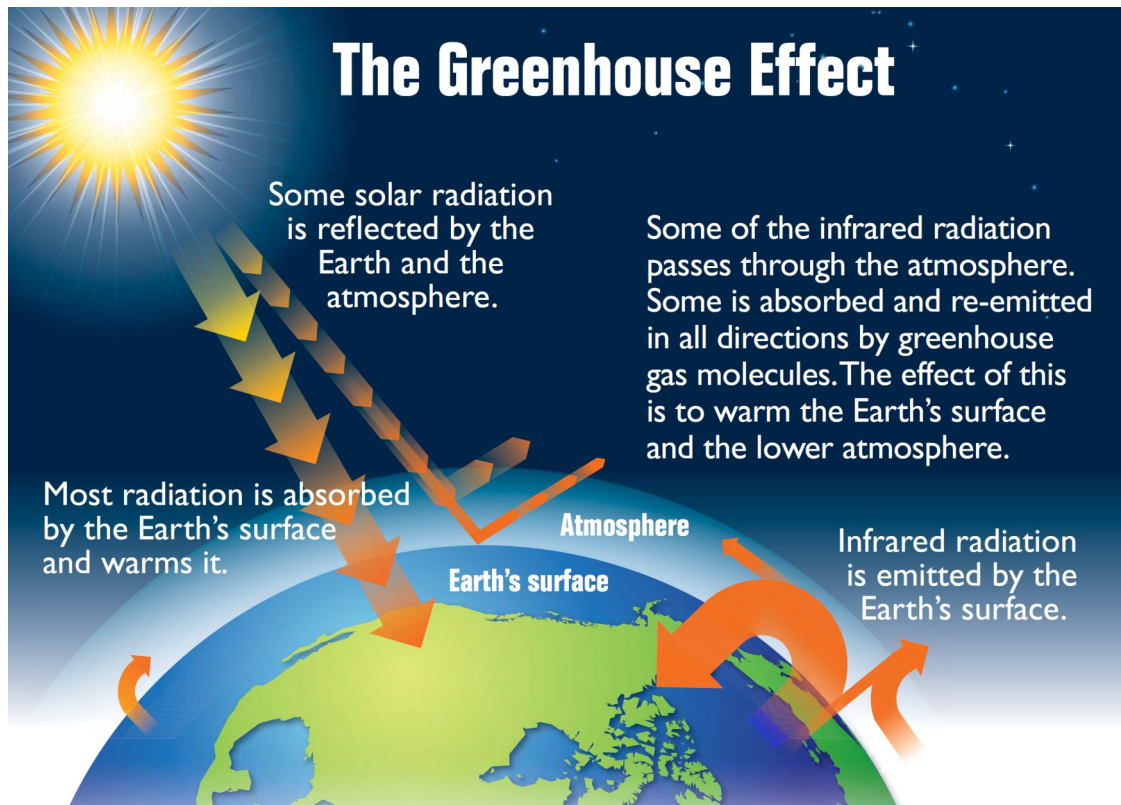
To prevent an increase in global temperatures above 1.5°C, carbon pollution needs to be cut down 45% by 2030 and come down to zero by 2050.

The Greenhouse Effect

Certain gases in the Earth's atmosphere let light in but trap heat and keep it from escaping. This causes warming, otherwise known as the greenhouse effect.



The greenhouse effect is what keeps the Earth's climate livable as without an atmosphere, the Earth would be much cooler. However in 1895 the scientist Svante Arrhenius discovered that humans can enhance the greenhouse effect by making carbon dioxide (CO₂) and other greenhouse gases such as methane and nitrous oxide.



How does energy factor in?

In order to get energy, such as electricity and gas, to fuel the school, fossil fuels are often burned. This produces carbon dioxide and other greenhouse gases and releases them into the atmosphere.

We are at a critical time where action needs to be taken. If we reduce the amount of energy we use then we reduce the amount of carbon dioxide and other greenhouse gases produced. We need to use less energy and be more efficient in the energy that we do use.

Further Reading:

<https://climate.nasa.gov/resources/global-warming/>

<https://www.nationalgeographic.com/environment/global-warming/global-warming-overview/>

