

Global Warming

Global warming is the temperature of Earth's surface, oceans and atmosphere going up over tens of years. Average temperatures today are about 1 degree Celsius (1.8 degree Fahrenheit) higher than before the Industrial Revolution, which happened around 1850. The most noticeable change because of this increase in temperature is the melting of ice caps all around the world. Sea level is rising steadily because of continental ice melting into the sea. Many cities will be partly flooded by the ocean in the 21st century.



Among the greenhouse gases, the increase of carbon dioxide (CO₂) in the atmosphere is the main cause of global warming, as predicted by Svante Arrhenius a hundred years ago, confirming the work of Joseph Fourier more than 200 years ago. When people burn fossil fuels like coal, oil and natural gas this adds carbon dioxide into the air. This is because fossil fuels contain lots of carbon and burning means joining most of the atoms in the fuel with oxygen. When people cut down many trees (deforestation), this means less carbon dioxide is taken out of the atmosphere by those plants. The gas produced by cows digestion also causes global warming, because it contains a greenhouse gas called methane.

As the Earth's surface temperature becomes hotter the sea level becomes higher. This is partly because water expands when it gets warmer. It is also partly because warm temperatures make glaciers and ice caps melt. The sea level rise causes coastal areas to flood. Weather patterns, including where and how much rain or snow there is, are changing. Deserts will probably increase in size. Colder areas will warm up faster than warm areas. Strong storms may become more likely and farming may not make as much food. These effects will not be the same everywhere. The changes from one area to another are not well known.

..... *Reading Comprehension*

1. What is global warming?

- a. A very hot summer
- b. The long-term rise in the average temperature of the Earth's climate system
- c. A short period of hot weather
- d. Making something warm or hot

2. What causes global warming?

- a. Sea level
- b. Trees and plants
- c. Greenhouse gases
- d. Glaciers and ice caps

Did you know?

There is more carbon dioxide in the atmosphere today than at any point in the last 800,000 years.