

Global Warming 101



For 2.5 million years the Earth's climate has fluctuated cycling from ice ages to warmer periods.

But in the last century the planet's temperature has risen unusually fast, about 1.2-1.4 °F

Scientists believe it is human activity that is driving the temperatures up, a process known as global warming.



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Greenhouse gas emissions

Since the industrial revolution began, factories, power plants, and eventually cars have burned fossil fuels such as oil and coal, releasing huge amounts of carbon dioxide and other gases into the atmosphere.

These greenhouse gases trap the heat near the earth through a natural occurring process called the "greenhouse effect".



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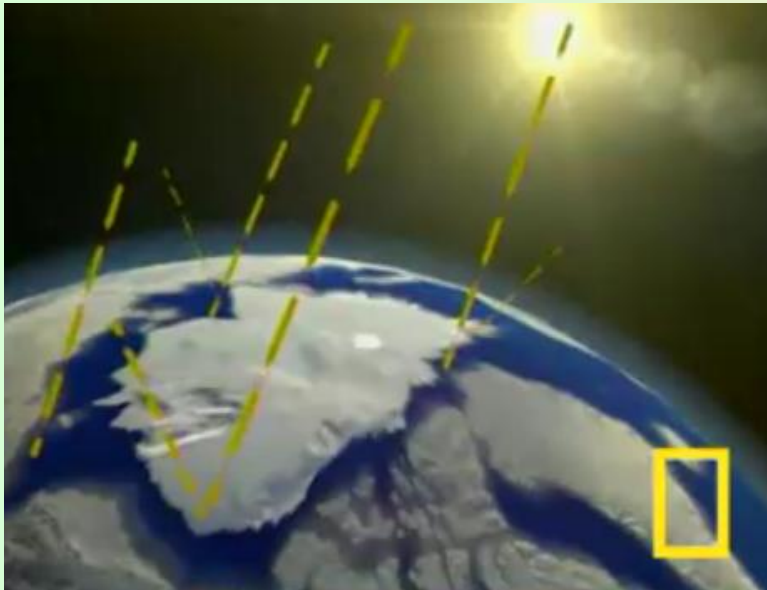


The greenhouse effect

The greenhouse effect begins with the Sun and the energy it radiates to the Earth.

The Earth and the atmosphere absorbs some of this energy while the rest is radiated back into space.

Naturally occurring gases in the atmosphere trap some of this energy and warms the Earth.



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The greenhouse effect

Scientists now believe that the greenhouse effect is being intensified by the extra greenhouse gases that humans have released.

Evidence for global warming includes a recent strain of very warm years.

Scientists record that 1998 has been the warmest year in measured history, with 2005 coming in second.



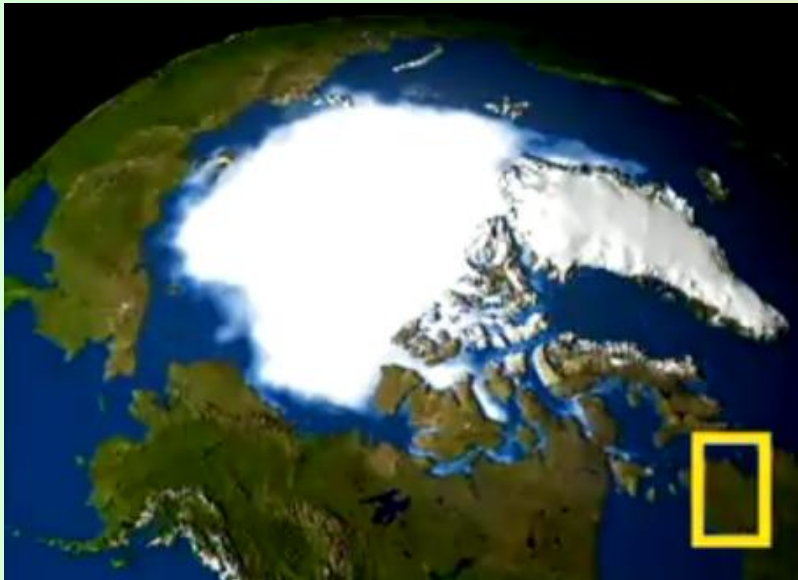
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Greenhouse gases

Greenhouse gases such as carbon dioxide and methane have hit the highest levels in the past 420 000 years.

According to NASA studies, the Arctic Sea ice is also shrinking. The extent of Arctic Sea ice has declined about 10% in the last 30 years.



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Greenhouse gases and energy consumption

As long as industrialized countries consume energy and developing countries increase their fossil fuel consumption, the concentration of greenhouse gases in the atmosphere will continue to rise.

Researches predict that the temperatures will increase about 2-10 °F (1-5 °C) by the end of the century.



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Greenhouse gases and its effects

What is less certain is what rising temperatures mean for the planet.

Some climate models forecast rising sea levels which can flood coastal areas around the world.



Weather patterns could change, making hurricanes more frequent; severe droughts could be more common in warm areas; and species unable to adapt to the changing conditions would face extinction.

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Greenhouse gases and its effects

Although much remains to be learned about global warming, many organizations advocate cutting greenhouse gas emissions to reduce the impact of global warming.

Consumers can help by saving energy around the house, switching compact light bulbs and driving fewer miles in the car.

