



read

Natural Hazards

The Greenhouse Effect

quiz



The Big Picture



Key Terms



Greenhouse effect – A natural processes that traps heat in the atmosphere.



Greenhouse gases – gases in the Earth's atmosphere that trap heat.



Long-wave radiation – Energy that is radiated outward by the Earth (land and sea)



Short-wave solar radiation – Solar energy that enters our atmosphere in the form of ultraviolet rays and visible light.



The Greenhouse Effect

The Greenhouse effect is a naturally occurring phenomenon that keeps the Earth warm enough for life to exist. It is estimated that the Earth would be 33° colder without the greenhouse effect.

Like a greenhouse, the atmosphere allows most of the heat from the Sun to pass through it to warm the Earth's surface. Gasses then trap some reflected energy as glass does in a greenhouse.

The Sun's short-wave solar radiation enters the atmosphere. The heat is reflected from the surface of the Earth as long-wave radiation. The natural layer of greenhouse gases allows some heat to be reflected out of the Earth's atmosphere, but some heat is trapped by CO₂ and methane, keeping temperatures warm enough for life on Earth.

The Greenhouse Effect

