

**Directions:** Complete the activity on the next page **before** reading the information below.

## Global Warming

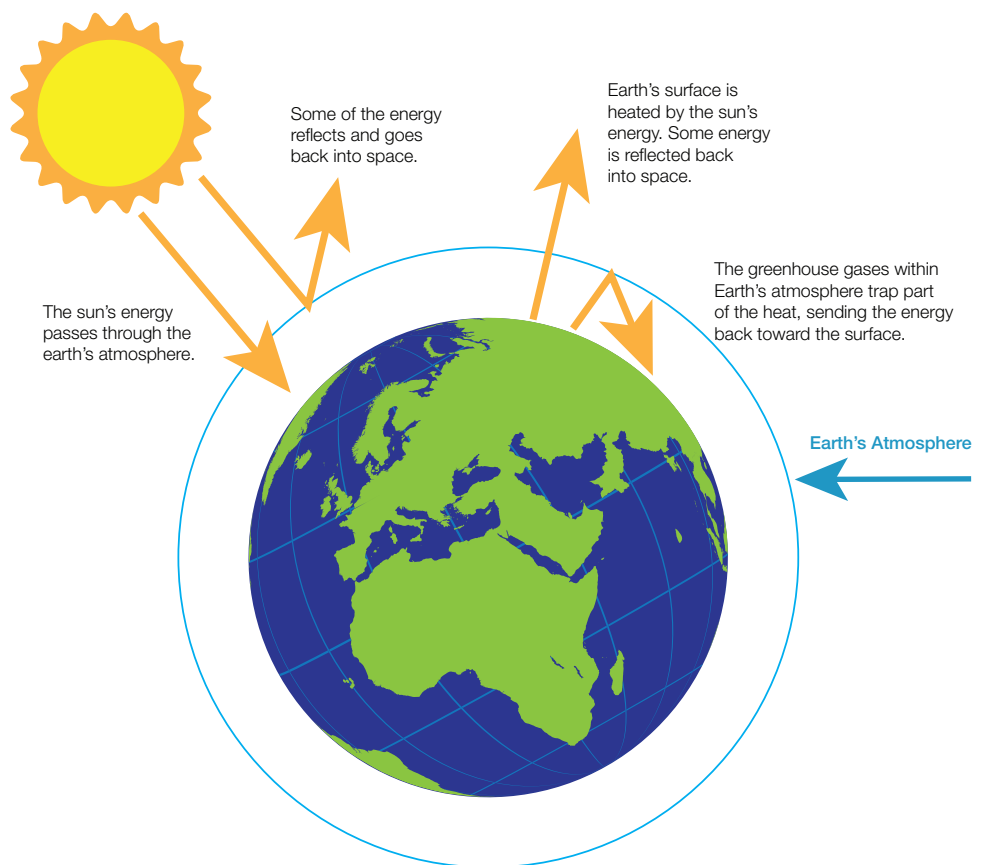
Have you ever sat in a warm car on a hot summer day? It's uncomfortable and dangerous, but it's also similar to what is happening to our Earth. Luckily we have open windows and fans to keep us cool, but if we don't have that, then heat comes in faster than it can leave and we feel overheated. When this happens to the planet it's called global warming.

Global warming is caused by something called the Greenhouse Effect. Our sun beams solar energy (which we see as light) down to the earth. Some of this is absorbed by the earth and some is reflected back up into the atmosphere. Some of the light that gets reflected passes through Earth's atmosphere, but some gets trapped by greenhouse gases, which keeps the heat near us and keeps us warm. This is a good thing. Without greenhouse gases Earth would be too cold. The problem is that the level of greenhouse gases has been increasing, meaning too much solar energy, or heat, gets trapped in the atmosphere. Temperatures have been rising around the globe — a sign our Earth is getting hotter.

Some of the causes for increased greenhouse gases are human-made. When we release carbon dioxide into the air it contributes to this. How do we add carbon dioxide to the atmosphere? Cars give off carbon emissions, factories that manufacture products give off carbon emissions. Other ways humans contribute to this is through wasteful use of energy, like keeping the lights on in a room when it's empty, or running the water faucet when you're brushing your teeth.

It may not seem like the earth is getting hotter from where you're sitting, but we have begun to see some big effects around the globe. Instances of severe weather have increased. Not necessarily small events like tornadoes — we're seeing more big floods, droughts and hurricanes. Due to the warmer temperatures, polar ice caps are melting. This impacts polar animals who rely on the ice caps for their habitat. Sea levels have also been rising.

You can help slow global warming. Consider some ways you might save energy, maybe riding your bike instead of taking a car. Shut off the lights after you leave a room. Turn off the water while brushing your teeth. If we all pitch in, we can make a difference to help our Earth!



**Directions:** Use the chart below to record your ideas **before** reading the text on what causes global warming and what effects it has. Then, read the text and list how your ideas have changed by adding new information or crossing out incorrect information from earlier.

Causes	Effects
Before Reading:	
After Reading:	

**Directions:** Answer the questions below.

1. After reading the information on global warming, list three questions you might ask to help better understand what causes it.
  
2. Write one thing you can begin doing today to reduce your carbon emissions and help slow down global warming.