

# What is Global Warming?

Understanding the causes to global warming and climate change

Global warming takes place when carbon dioxide, greenhouse gases, and air pollutants collect in the atmosphere. Then, they absorb sunlight and solar radiation that is bounced off the earth's surface, warming the planet. There are both natural and human causes of global warming. But, human activity contributes the most to global warming. To learn more how you can help, visit us at [www.ecoresearch.com](http://www.ecoresearch.com)



## The Greenhouse Effect

The greenhouse effect refers to the situation when the Earth's atmosphere becomes thick due to gases and substances that trap the sun's radiation, making the Earth warmer. For Earth's temperature to remain stable, the amount of incoming solar radiation should be roughly equal to the amount of IR leaving the atmosphere. This is something that can, on some level, occur naturally.



## Travel & Transportation

Most automobiles are powered via fossil fuels, including gasoline. They release carbon and other pollutants into the air, but affect both water and air quality. In fact, emissions due to transportation is known as one of the biggest causes behind rising temperatures.



## Industrialization

The economic transition of the world from primarily farming-based to primarily industrial is another major cause of global warming. While the changes coincide with the start of the industrial revolution, in the mid-19th century with the emergence of the global economy.



## Deforestation

A massive amount of forests are cleared every year to meet demands for wood and pulp. Forests release a lot of oxygen, consume carbon, and purify our air, thus maintaining the planet's temperature. As we lose millions of acres of trees and greenery, the planet's ability to absorb the carbon we produce drops dramatically. *In 2017, we lost about 39 million acres of tropical forests.*



## Electricity Overuse

Electricity for fossil fuels is another biggest greenhouse gas contributor. It accounts for about 28 percent of the total global warming effect. In the USA, 68% of electricity is still generated through the use of fossil fuels - mostly natural gas and coal.



## Factory Farming

The industrialization of agriculture amplifies the potential negative effects of livestock production. Organic farming has a positive impact on global warming by reducing carbon through the growth of crops. A **67% increase** is projected in antibiotics used in animal production, by 2030.



## WORKSHEET GLOBAL WARMING

Answer the questions below based on the info-graphic above.

Your Group and Class...

What is the definition of global warming?

What substance or compound is the major contributor to global warming?

Explain the role of green chemistry in global warming (based on that causes).

**Look for words that match the answer to the statement below.**

D	R	C	R	N	G	A	T	H	F
R	S	T	E	G	G	D	G	V	O
E	N	U	K	F	A	Q	S	X	R
S	E	N	F	O	S	S	I	L	E
R	O	E	J	W	O	W	P	E	S
O	R	L	L	S	L	R	K	F	T
S	S	I	A	X	I	Y	L	E	R
A	V	A	U	R	N	S	R	G	A
R	Y	R	O	Z	E	S	T	T	I
G	R	E	E	N	H	O	U	S	E

1. The effect that making the earth warmer.
2. Motor vehicle fuel.
3. Non-renewable fuel. (..... fuel)
4. Source of oxygen and absorber of carbon dioxide.
5. One of the renewable energy.