



**High School Science Virtual Learning**

**Earth Science**

**Human Induced Climate Change**

**May 08, 2020**



# High School Earth Science

## Lesson: May 08, 2020

### **Objective/Learning Target:**

Students will be able to identify the factors contributing to climate change, cite evidence supporting human induced climate change, and impacts of climate change.



Let's Get Started:

**Watch this video: Global Warming 101: National Geographic**

[Link to Video](#)

**Questions:**

1. What is the main contributor to rising temperatures on Earth?
2. How can the individual consumer help lower their impact on global warming?



## Let's Get Started: Answer Key

1. Question 1- Increase production of carbon dioxide by the burning of fossil fuels.
2. Question 2 - Reduce energy use at home and by driving gasoline powered cars less.



## Lesson Activity: **Climate Change**

**Directions:** Read - “Climate Change: How Do We Know?”  
from the NASA website.

[Link to page](#)

Complete the guided reading questions on the following slide.



1. List nine indicators of rapid climate change.
2. How has the amount of carbon dioxide in the atmosphere changed since 1950?



## Lesson Activity: **Climate Change**

**Directions:** Read “Climate Change” from Global Change.gov

[Link to Page](#)

Complete the guided reading questions on the following slide.



1. What three primary human activities are driving global warming?
2. What impacts on human society will result from continued global warming?
3. What are our two main response options to global warming?





# Answers

1. List nine indicators of rapid climate change. **Global temperature rise, warming oceans, shrinking ice sheets, glacial retreat, decreased snow cover, sea level rise, declining arctic sea ice, extreme weather events, ocean acidification.**
2. How has the amount of carbon dioxide in the atmosphere changed since 1950? **Increases from 310 ppm to 410 ppm.**

1. What three primary human activities are driving global warming? emissions of heat-trapping greenhouse gases from fossil fuel combustion, deforestation, and land-use change, are the primary driver of the climate changes observed in the industrial era.
2. What impacts on human society will result from continued global warming? human health, agriculture and food security, water supply, transportation, energy, ecosystems
3. What are our two main response options to global warming? Adaptation (learning to live with the harmful effects) and mitigation (taking steps to reduce or minimize the effects).

## Extensions:

### Video “Global Warming”

[Link to Video](#)

1. When did we first discover the Earth was warming?
2. When did people first begin to take the problem serious?

### Video “Causes and Effects of Climate Change: National Geographic”

[Link to Video](#)

## Extension Answers

1. When did we first discover the Earth was warming? **1938, when Guy Stewart Callendar examined global temperatures over time**
2. When did average people first begin to take the problem serious? **Late 1980's when political leaders and the press began to address the topic.**