



# CLIMATE DEBATE

## CONSUMPTION AND CONSERVATION

BRENT CUMMINGS

<b>Time Frame:</b>	<b>Standards:</b>
1-2 hours	8-9.ES.1.6.6 Communicate and defend a scientific argument. (649.01f)  8-9.ES.5.1.1 Analyze environmental issues such as water and air quality, hazardous waste, and depletion of natural resources. (656.01a)
<b>Objectives:</b>	
Students will explore different theories and opinions about global warming. Students will learn to distinguish between scientific fact and personal opinions.	
<b>Background Information:</b>	
<p>“For over the past 200 years, the burning of fossil fuels, such as coal and oil, and deforestation have caused the concentrations of heat-trapping "greenhouse gases" to increase significantly in our atmosphere. These gases prevent heat from escaping to space, somewhat like the glass panels of a greenhouse (EPA).”</p> <p>“Greenhouse gases are necessary to life as we know it, because they keep the planet's surface warmer than it otherwise would be. But, as the concentrations of these gases continue to increase in the atmosphere, the Earth's temperature is climbing above past levels. According to NOAA and NASA data, the Earth's average surface temperature has increased by about 1.2 to 1.4°F in the last 100 years. The eight warmest years on record (since 1850) have all occurred since 1998, with the warmest year being 2005. Most of the warming in recent decades is very likely the result of human activities. Other aspects of the climate are also changing such as rainfall patterns, snow and ice cover, and sea level (EPA).”</p> <p>Although it is now accepted that global climate change is occurring some claim that the change in global climate is due to natural processes that take place over thousands of years and that we really have no control over it. The question being explored in this lesson is whether or not global climate change is caused by humans and can we stop it.</p>	
<b>Materials:</b>	
One article supporting global warming. One article opposing global warming. (Articles may be found at <a href="http://www.climatedebatedaily.com/">http://www.climatedebatedaily.com/</a> )	



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### Procedure:

- Survey: What do students know about global warming?
- Question: What is their opinion on the subject? Is it a problem? Is it caused by humans?
- Read: Read selected articles about global warming from differing points of view.
- Review: Allow students to talk about their opinions in small groups and then later as a class.
- Recite: Ask students to write a paragraph defending their stance on the issue of global warming.

### Assessment:

Climate Debate worksheet  
Did students properly defend their stance on global warming?  
Did students actively participate in the class discussion?  
A rubric might be used to grade student participation in the discussion.

### Additional Content:

Climate change worksheet  
There is a free DVD from 20/20's John Stossel which has a video segment on the global warming debate. It can be found at the following link.

<http://stosselintheclassroom.org/selectdvd.php>

### References:

"Climate Change." EPA. 22 Apr 2009. U.S. Environmental Protection Agency. 14 Jul 2009 <<http://www.epa.gov/climatechange/basicinfo.html>>.

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Bringing Energy into the Classroom

Name: \_\_\_\_\_

# Global Climate Change

What I know or Questions that I have (10pts):

What I have learned (10pts):

My position on global climate change (20pts):