

Global Warming Lesson: 10/31/13

Objectives:

1. Differentiate between climate and weather
2. Understand that climate change encompasses more than global warming (i.e. ocean acidification)
3. Appreciate and value the greenhouse effect
4. Improve moral judgment around global warming in a debate



1) Anticipation Guide: 5 minutes

Name: _____

Oct. 31, 2013



Climate Change

Fossil fuels are used when we... (circle all that apply)	...eat an apple shipped from Washington.	...eat an apple from our backyard.	...write on this paper.	...send a text message.
Carbon dioxide (CO ₂) contributes to climate change.	True!		False!	
Global warming is caused by... (circle all that apply)	A hole in the ozone layer	Burning of fossil fuels	Increased greenhouse gases in the earth's atmosphere	The earth moving closer to the sun
Greenhouse gases emitted by humans include...	Methane	Carbon dioxide	CFC's	Nitrous oxide

2) Define Global Warming and Climate Change In Your Own Words: 20 Minutes

Have 4 large sheets of paper ready to pass out into the four groups. Two say Climate Change on the top and two say Global Warming on the top. Have groups define them in their own terms.

After five minutes (or more!) allow them to come together as a group and discuss their definitions.

Questions to stimulate discussion:

What is the difference between global warming and climate change?

Does one encompass more than the other?

**3) Video - 5 Things We Learned About Climate Change AND Discussion:
25 minutes (or more!)**

<http://www.youtube.com/watch?v=dGG7JGT4Fdo>

Follow with a discussion with some of the following questions:

- What does this all mean to you?
- What are greenhouse gases?
- How can we reduce our energy consumption? (Carbon emissions and other greenhouse gases)
- Why don't we all change our habits?
- How might this affect Vermont?
- What are ways you are reducing your carbon footprint?
- What you think the next ten years holds?

4) Moral Dilemma: Should Medina Continue The Family Legacy?! 25 minutes (or more!)

A Saudi woman, named Medina, inherits the family oil company after an unfortunate and tragic accident makes her the sole survivor in her family. This oil company happens to be one of the largest oil companies in the world, controlling about 40% of the world's oil supply. Medina is considered very wealthy and her family will have all of the money they need for many generations.

She is very well educated and is completely aware of the impacts of burning fossil fuel and its effects on climate change. She is torn between her ideals of a "green" future, free of fossil fuel and her dreams of continuing her family's oil legacy that much of the world is now dependant upon.

Some of her professors from Harvard and her friends urge her that this is her chance to make a positive change in the world moving us closer to sustainability, while others warn her of the dangers from stopping production, including famine, war, and poverty.

Should Medina consider the needs of a changing planet (1) and stop production or should she consider the needs of human dependence (10) and continue her family's legacy?