

Town Meeting on Global Warming Solutions

Goals

- That the students will come out of the class informed about what is happening and what they can do about it
- Students knowing how this will affect them and their future
- Students knowing what everyone can do to help
- Students knowing each person's power and each individual's power to create change
- Students take on perspectives of stakeholders and learn from multiple perspectives

Target Age

Elementary, middle, high school aged kids

Organizations

Youth Speak Up (www.youthspeakup.org)

Step It Up 2007 (www.stepitup2007.org)

Climate Crisis (www.climatecrisis.net)

Global Warming Project (www.letus.northwestern.edu/projects/gw)

Hook

"Global Warming...What do you know?" (page 5, student handout 1)

Global Warming Information

(page 6, student handout 2)

Activity

Students role-play using stakeholders and real information. Students should make references to text and back up their opinions with information. Students will sit in a circle form, and make cards with their characters name and a short summary of why they are a stakeholder on it.

Teacher Directions

Assign the characters to students in your class. Devote 45 minutes to an hour to have a class discussion. Give the following directions to your students:

Student Directions

- Read your character description and think of some arguments your character is going to have about what each person's responsibility for global warming is
- Read the provide information/text and get supporting facts for your arguments

- During the meeting raise your hand and make eye contact with your teacher (teacher, as students make eye contact please their names down in a list form and call off who's is going after who so you can keep the conversation organized and constantly going)
- If another person's argument directly mentions your character you have 30 seconds to rebuttal or have a come back before moving on with the list of names.

Debrief

When the discussion is over, have the class come to a consensus on what all the stakeholders (characters) should do and have a small class discussion led by teacher about what they thought about town meeting and global warming discussion.

Questions:

- What did you think about the set up of a town meeting?
- Do you think you were able to voice you and your characters opinion effectively?
- What did you think about discussing global warming?
- Do you think you were prepared?
- Do you think that the classes ideas would be possible to enact in the real world?

Quotes

(pages 7-8,student handout 3)

(student handout 3)

Characters

George W. Bush: As President of the United States, you care very much about making all of your voters happy including the people who import gas. You do not want to see the economy fall because people want to go green but you also don't want to lose environmental voters.

Al Gore: You made a movie about the effects of global warming and want to see more people get involved in changing their ways to be better for the environment.

Greg Nickels: You were the first mayor in the United States to challenge your city to meet Kyoto Protocol standards. There are now 518 cities involved in this initiative. You want to see more cities get involved as well as the federal government take action.

Tony Blair: You don't want to see the economy fall but you don't want to ignore the pressing issues posed by global warming. You have signed the Kyoto Protocol and want to reduce your emissions but you don't want to buy expensive things.

Jeffrey R. Immelt (CEO of General Electronics): You are trying to make all of your products in a way that is better for the environment while also making money. More and more of your products are becoming environmentally friendly.

Michael Bloomberg (Mayor of New York): You have become aware of the prospect that the twin towers memorial site will be under water because of global warming flooding. You want to make your city as environmental as possible.

Heroen van der Veer (CEO of Shell): Right now global warming isn't a big problem for you, and you need to make sure your gas is being effectively sold. You want to help the environment but pumping and importing gas is your business.

Dave O'Reilly (CEO of Chevron): Like the CEO of Shell you want to maintain your business effectively and you want to make money. You do not want to disrespect or ignore environmental problems today but you need to maintain your business.

Arnold Schwarzenegger (Governor of California): You are the first governor to challenge your state to meet the Kyoto Protocol's standard for reducing carbon dioxide emissions by 80% by 2050. You have created a "green" state and want to keep it that way.

You are a working mom who has to drive her 4 kids (and their friends) around to sports and other places; the only car that fits them all is a SUV. New hybrids are expensive and new SUV hybrids are more expensive. You try to be as good to the environment as possible but it is a constant struggle.

You are the owner of a small business that still uses coal for heat because it is cheaper. You have been approached by people who produce clean and renewable sources for energy but had to turn them down because you cannot afford it.

You are a successful car engineer who designs hybrid cars for big car companies. You are also very passionate about the environment and want to continue to make your cars better but you are constantly challenged by the price your cars have to be.

You are a car salesperson who can't afford to buy hybrids for your store. You have been approached by customers that want to buy hybrids but you have had to refer them to another store because they are too expensive for you. You want hybrids to be cheaper and more available.

You are a working person who owns a hybrid and lives in an all green house. You are passionate about the environment and want to stay that way.

You are a student learning about the effects global warming has on the environment and you are very shocked that you have not heard about this before. You want to change your ways but feel powerless because it is *global* warming.

You are a very passionate activist about global warming and actively display your opinion. You try to be as environmental as possible and support everyone you can.

(student handout 1)

Global Warming... What do you know?

1. In 14 years from 1990 to 2004 what percent did the United States add to their green house gas emissions?
 - a) 6%
 - b) 16%
 - c) 26%

2. What does the Kyoto Protocol say the United States needs to do about its green house gas emissions?
 - a) Add more
 - b) Reduce by 50% by 2100
 - c) Reduce by 80% by 2050

3. In the United States, how many cars are there per 1000 people?
 - a) 574
 - b) 1074
 - c) 774

4. In the United States, how many endangered or threatened species of animals are there?
 - a) 129
 - b) 829
 - c) 1029

5. The United States produces 70% of its electricity from fossil fuels (coal, natural gas, and oil) but what percent does it produce from renewable resources?
 - a) 1%
 - b) 2%
 - c) 15%
 - d) 25%

6. The United States is tied for the _____ largest ecological footprint in the world
 - a) 1st
 - b) 2nd
 - c) 3rd
 - d) 5th

(student handout 2)

Global Warming Information

- From 1990 to 2004, the United States added 16% to its total greenhouse gas emissions
 - The United States is a signatory of the Kyoto Protocol but it has neither ratified nor withdrawn from the protocol
 - The United States is the largest single emitter of carbon dioxide from the burning of fossil fuels
 - The current administration does not intend to submit the treaty for ratification because it does not agree with Kyoto principals
 - Eight Northeastern U.S. states are involved in the Regional Greenhouse Gas Initiative
 - 518 U.S. cities in 50 states, representing more than 60 million Americans, support Kyoto after Mayor Greg Nickels of Seattle started a nationwide effort to get cities to agree to the protocol
 - The United States emits 19.8 metric tons of carbon dioxide per capita (1998)
 - There are 774 vehicles per 1,000 people in the United States (2000)
 - 23% surface of the United States is area protected
 - There are 829 animal species that are threatened or endangered
 - There are 168 plant species that are threatened or endangered
 - The United States currently produces 70% of its electricity from fossil fuels such as coal, natural gas, and oil, and only two percent from renewable sources
 - Cars and trucks are another significant source (25%) of U.S. carbon dioxide emissions
 - The United States has the 3rd largest ecological footprint (in global hectares) per person
 - The United States is 10th for energy consumption per capita
 - The United States is 97th for forestland protected
 - The United States is 31st for protected areas
- | | | |
|--|-------|-------------------------------------|
| - <i>GHG Total Emissions</i> | 6 890 | Tg CO2 equivalents |
| - <i>Greenhouse Gas Emissions per Capita</i> | 23.4 | tones of CO2 equivalents per person |

Articles and more information links

-Anja Brandon-Drevitch.

<http://www.youthspeakup.org/gw%20information/gw%20information.htm>

-Chris Kelly. <http://www.petitiononline.com/gorefilm/petition.html>

-Ellen Goodman.

http://www.boston.com/news/globe/editorial_opinion/oped/articles/2007/02/09/no_change_in_political_climate/

-Robert McClure.

http://seattlepi.nwsourc.com/local/299253_inconvenient11.html

(student handout 3)

Quotes

“The entire ocean is affected by a pebble.” –Blaise Pascal

“The goal of life is living in agreement with nature” –Zeno

“There are many who still do not believe that global warming is a problem at all. And it's no wonder: because they are the targets of a massive and well-organized campaign of disinformation lavishly funded by polluters who are determined to prevent any action to reduce the greenhouse gas emissions that cause global warming out of a fear that their profits might be affected if they had to stop dumping so much pollution into the atmosphere.” –Al Gore

“What changed in the United States with Hurricane Katrina was a feeling that we have entered a period of consequences.” –Al Gore

“For a long time, the scientists have been telling us global warming increases the temperature of the top layer in the ocean, and that causes the average hurricane to become a lot stronger. So, the fact that the ocean temperatures did go up because of global warming, because of man-made global warming, starting around in the seventies and then we had a string of unusually strong hurricanes outside the boundaries of this multi-decadal cycle that is a real factor; there are scientists who point that out, and they're right, but we're exceeding those boundaries now.” –Al Gore

“Our nation has both an obligation and self-interest in facing head-on the serious environmental, economic and national security threat posed by global warming.” –John McCain

“All across the world, in every kind of environment and region known to man, increasingly dangerous weather patterns and devastating storms are abruptly putting an end to the long-running debate over whether or not climate change is real. Not only is it real, it's here, and its effects are giving rise to a frighteningly new global phenomenon: the man-made natural disaster.” –Barack Obama

“Today we're seeing that climate change is about more than a few unseasonably mild winters or hot summers. It's about the chain of natural catastrophes and devastating weather patterns that global warming is beginning to set off around the world.. the frequency and intensity of which are breaking records thousands of years old.” –Barack Obama

“The issue of climate change is one that we ignore at our own peril. There may still be disputes about exactly how much we're contributing to the warming of the earth's atmosphere and how much is naturally occurring, but what we can be scientifically certain of is that our continued use of fossil fuels is pushing us to a point of no return. And unless we free ourselves from a dependence on these fossil fuels and chart a new course on energy in this country, we are condemning future generations to global catastrophe.” –Barack Obama

“Global warming is one of those things, not like an earthquake where there's a big bang and you say, 'Oh, my God, this is really, has hit us.' It creeps up on you. Half a degree temperature difference from one year to the next, a little bit of rise of the ocean, a little bit of melting of the glaciers, and then all of a sudden it is too late to do something about it.”
–Arnold Schwarzenegger

“We simply must do everything we can in our power to slow down global warming before it is too late. The science is clear. The global warming debate is over.” –Arnold Schwarzenegger

“Global warming is too serious for the world any longer to ignore its danger or split into opposing factions on it.” –Tony Blair

“Two thousand scientists, in a hundred countries, engaged in the most elaborate, well organized scientific collaboration in the history of humankind, have produced long-since a consensus that we will face a string of terrible catastrophes unless we act to prepare ourselves and deal with the underlying causes of global warming.” –Al Gore

“The warnings about global warming have been extremely clear for a long time. We are facing a global climate crisis. It is deepening. We are entering a period of consequences.” –Al Gore

“The good news is we know what to do. The good news is, we have everything we need now to respond to the challenge of global warming. We have all the technologies we need, more are being developed, and as they become available and become more affordable when produced in scale, they will make it easier to respond. But we should not wait, we cannot wait, we must not wait.” –Al Gore