Global Climate Change

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Global Climate Change

- Goals, Standards, and Assessment
- Student Activities
- References and Acknowledgements
Goals

There are several points that I wanted the students to learn:

- Global climate change is a real and present danger
- Emissions of carbon dioxide, sulfur dioxide, nitrogen oxides, and mercury have negative effects on health and the environment
- Acts as simple as changing a light bulb can reduce emissions of these compounds
Alignment to State Standards

- 11A - Students who meet the standard know and apply the concepts, principles, and processes of scientific inquiry
- 12E - Students who meet the standard know and apply concepts that describe the features and processes of Earth and its resources
- 13B - Students who meet the standard know and apply concepts that describe the interaction between science, technology, and society
Assessment

- Students were assessed on their foldable, research, survey and calculations, and their reflection about what they learned.
Global Climate Change

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Part I: Prior Knowledge

- Each student created a globe-shaped foldable
- Students listed what they knew or thought they knew about Global Warming/Global Climate Change
- Students listed any questions they had about the topic
- Students discussed as a class what they had written
Part II: An Inconvenient Truth

- Students watched “An Inconvenient Truth: A Global Warning”
- Took several class sessions to watch
- Students took notes on what they learned
- Students added any additional questions to foldable
Part III: Research

- Students researched either mercury, sulfur dioxide, carbon dioxide, or nitrogen oxides.
- Students answered the following questions:
  - How is the pollutant released into the atmosphere?
  - What are the hazards to health and the environment?
  - What are other important facts about the pollutant?
- Students shared information with the rest of the class and filled in a graphic organizer together.
Pollutant Graphic Organizer

Pollutants

- Sulfur dioxide
- Carbon dioxide
- Nitrogen Oxides
- Mercury
Part IV: CFL vs Incandescent Bulbs

- I explained the research project that I participated in last summer
- I presented my power point presentation about CFL versus Incandescent light bulbs to the students
Part V: The Story of Stuff

- Students watched and discussed a 20 minute internet video titled:

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THE STORY OF STUFF
WITH ANNIE LEONARD
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Part VI: “My Impact” Survey

- Students did a survey of their home by counting the number of light sockets.
- Students calculated their impact on the environment and what their impact would be if they simply changed their light bulbs.
- Calculated for energy usage, mercury, CO$_2$, SO$_2$, and NO$_x$ emissions.
After calculating their impact, the students answered the following:

- Did the difference between the types of bulbs surprise you? Why or why not?
- What other activities do you already do to help the environment?
- What activities would you like to do that you don’t currently?
- Do you feel you can make a difference? Why or why not?
Students watched a 20-minute internet video titled: "SOLVING GLOBAL WARMING: DOING SOMETHING".
Final Activity: Paper Quilt

- Students answered a question on a small piece of construction paper
  - What did you learn about Global Climate Change?
  - What can you do to save the planet?
- The papers were strung together to create a quilt and hung on a bulletin board near the sixth grade classrooms
We’re All Stitched Together...
Save our planet!

We have damaged our earth. There is a lot we can do to save our planet.

What we can do to help

Global Climate Change are

I can make a difference by changing my lightbulbs. Rechargeable batteries also save energy and money! Change the temperature. It is warmer in summer and cooler in winter. Use handkerchiefs instead of tissues. Use your bike instead of a car.

by Carlos Jimenez

How can I save the planet?

I learned that Global Climate Change is a real problem. It effects our atmosphere. What I can do to save the world is I can recycle, reuse, reduce, and conserve.

I'm going to stop Global Climate Change. We need to use CFL light bulbs. Recycle bottles, paper, glass, and plastic. Use your bike or walk instead of driving. Cut down on things we can do to save money.

What can you do?
Global Climate Change

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