

GLOBAL WARMING

Subject

Basic science

Prepared By

[Instructor Name]

Grade Level

5

Overview

This lesson plan covers teaching content for;

- 1.Global warming and its causes
- 2.Global warming and its effects

Objectives

Students should be able to;

1. Explain the difference between weather and climate.
2. Explain what is causing climate change, and propose ways to help solve the issue.

Activity Starter/Instruction

1. Display the following for the students: The British geographer Andrew John Herbertson once wrote: "Climate is what on average we may expect. Weather is what we actually get."
2. Have students turn and talk with a partner about what they think this quote means. Tell them to be ready to share one of their thoughts with the class.
3. Let a few students share out their thoughts, and then explain that the students will be investigating the difference between climate and weather today.

Guided Practice

Day 2/ Lesson 2: 15 Mins

1. With an understanding of the greenhouse effect and global climate change, students can now make predictions about the potential impact of global warming.

Teacher Guide

Day 1/ Lesson 1: 15 Mins

1. To begin the class, ask students to think without talking about a definition for the greenhouse effect. Give them a minute to formulate their ideas and then have them write down their definitions so they can share them.
2. At the end of the allotted time, ask students to share their definitions with one or two other students sitting nearby and compare the similarities and differences in their definitions. Allow a few minutes for student pairs or groups to then combine their definitions into one that they believe is the most accurate.
3. Begin a class discussion by asking several pairs/groups to share their definitions of the greenhouse effect.
4. Next explain to students what greenhouse is and how it contributes to global warming
5. Explain to students that without the thermal blanketing of the natural

Materials Required

- science journals
- internet enabled computer or mobile

Additional Resources

- <http://www.pbs.org/shows/304/>
- <http://www.pbs.org/shows/343/>
- http://www.ithaca.edu/looksharp/Books_Gl
- <http://www.youtube.com/projectlooksharp>
- http://www.ithaca.edu/looksharp/Books_Gl
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Additional Notes

Weather and climate are integral factors in the A basic knowledge of weather and climate will help young students form the foundation from which to build deeper thinking about the earth as a system.

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2. Ask students to hypothesize about how the world's climate could change over the next 100 years if humans do nothing to limit the levels of their greenhouse gas emissions.
 3. Have them also make predictions about the effects such climate changes could have on humans.
 4. Working in pairs, small groups, or as a class, students should brainstorm a list of their ideas related to these questions. Each student should record a copy of the list in order to refer back to it later in the lesson
 5. Now that students have explored a variety of perspectives on global climate change, they will take a position on the issue and support it with data from their previous research.
 6. Ask students to write 2-3 persuasive paragraphs to answer the following questions: In your opinion, is global warming an imminent world threat? Why or why not? Based on your opinion, what actions do you believe should be
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greenhouse effect, Earth's climate would be about 33°C (about 59°F) cooler—too cold for most living organisms to survive.

6. Tell them that in the next class, they are going to be learning in extension the human effects on global warming

Guided Practice

Day 3/ Lesson 3: 15 Mins

1. Tell students to design a project of their own with teacher approval. The goal of the project is for students to create something substantive that they can use to share their positions on global warming and to increase awareness about its related issues.
2. Allow students one class period to begin work on their projects, then assign a completion date.
3. When projects are completed, display student projects and/or have students present them to the class as a way of demonstrating their point of view on global warming issues.

	<p>taken to address the global warming issue?</p> <p>7. Remind students to support their opinions with specific information from the brainstorming lists created earlier.</p> <p>8. Once students have organized their thinking on paper, give them the opportunity to share their opinions with at least one other student in class. Do not allow discussion or debate; rather, allow students to practice sharing what they have written so that others can hear the reasons behind their positions.</p>	
	<p>Assessment Activity</p> <p>1. Using a scoring guide and a self-evaluation rubric, have the teacher and the student evaluate his/her project using criteria established prior to completion of the assignment.</p> <p>2. As students present their projects to one another, have their classmates complete a peer evaluation form that assesses the effectiveness of the project in terms of providing factual information to others.</p>	<p>Assessment Activity</p>

Summary

The greenhouse effect has warmed Earth for over 4 billion years. Now scientists are growing increasingly concerned that human activities may be modifying this natural process, with potentially dangerous consequences. Since the advent of the Industrial Revolution in the 1700s, humans have devised many inventions that burn fossil fuels such as coal, oil, and natural gas. Burning these fossil fuels, as well as other activities such as clearing land for agriculture or urban settlements, releases some of the same gases that trap heat in the atmosphere, including carbon dioxide, methane, and nitrous oxide. These atmospheric gases have risen to levels higher than at any time in at least the last 650,000 years. As these gases build up in the atmosphere, they trap more heat near Earth's surface, causing Earth's climate to become warmer than it would naturally
