



Lesson Plan Grade 5 Science



Lesson Plan Written By: Mr. L. Slavutych	
Grade: Five	Mentor Teacher: Dr. J. L. Branch
Time: Block Three and Four: 60 Minutes. March 14+15 11:05AM-12:05PM	Date: March 12, 2005
Subject: Science	Topic: Man's Effect on Weather

Objectives and Purpose

- **Program of Studies:** "Students will recognize that human actions can affect climate, and identify human actions that have been linked to the green house effect." (POS, B.27, 1996)
 - Students are learning awareness of global warming and its effects (both positive and negative) on Earth.
 - Global warming is an increasing issue on our planet today that must be dealt with.
- **ICT Outcomes:** 2.1 access and retrieve appropriate information from the Internet by using a specific search path or from given uniform resource locations
 - Student will learn ways in which human beings contribute to the increase in fossil fuels have on our atmosphere by going to the [Global Warming Website](#).
 - Based on their findings from the [Global Warming Website](#) and from the results of their "greenhouse" model, the students will demonstrate ways in which they, themselves can reduce the amount of emissions of green house gases into our atmosphere.

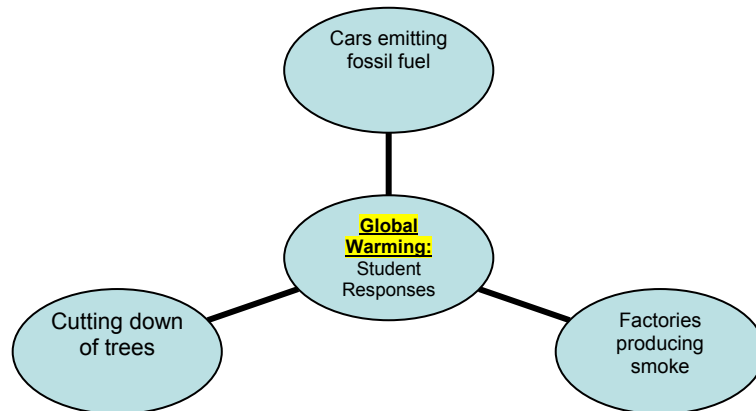


Anticipatory Set (KWA Chart)

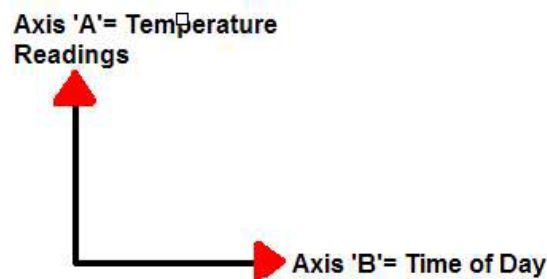
■ **Academic Purpose:** The purpose of this lesson is to examine human actions and their consequences to our environment

What the students Know	What I Want my Students to Know	What the students have Learned
<ul style="list-style-type: none">• What a fossil fuel is• The significance of trees in our environment• What pollution can do to our environment• The benefits and consequences of automobiles and factories in society	<ul style="list-style-type: none">• Asking the students to actively participate in a brainstorming activity describing various ways in which they believe humans contribute to “global warming”. This can be done successfully through a concept map or web.• The negative impacts that fossil fuels have on the environment.• The amount of carbon dioxide that is released into our atmosphere.• The negative impacts of global warming.• Ways in preventing additional infrared radiation from coming through our atmosphere.• Ways in promoting effective use of resources through recycling, reusing and composting.	<ul style="list-style-type: none">• How to construct a greenhouse model.• Interpreting the temperatures that are read from thermometers to plotting appropriate information onto graphs.• Through the creation of a “greenhouse” model, students will be able to monitor and assess the effects from their models and apply that knowledge to how everyday human beings contribute to global warming.

Example of Concept Map or Web:



Example of Graph that the students should provide:



Day #1 (of 2) Outline

Materials

- Computer
- Internet Research: the teacher will provide the following links for students to help them understand concepts of the 'greenhouse effect' and its corresponding constituents
 - <http://www.epa.gov/globalwarming/kids/gw.html>
 - <http://www.epa.gov/globalwarming/kids/greenhouse.html>
 - <http://www.epa.gov/globalwarming/kids/change.html>
 - <http://www.epa.gov/globalwarming/kids/bigdeal.html>
 - <http://www.epa.gov/globalwarming/kids/difference.html>
- Internet and Online Interaction
 - http://www.epa.gov/globalwarming/kids/quiz_global_warming.html
 - <http://www.epa.gov/globalwarming/kids/games/index.html>
- The latter of the two webpage links listed above, is for students that have finished the



	<p>required reading activities, then they can proceed to an online activity (i.e. online crossword puzzle, the “concentrate” game→students matching various puzzle cards that relate to terms corresponding to global warming.</p> <ul style="list-style-type: none">■ The materials that the students will require to create their group miniature greenhouse model (clear plastic wrap, craft sticks, cardboard, scissors, tape, glue, markers)■ Several lamps with strong luminous light bulbs■ Several indoor/outdoor thermometers■ Graph paper■ Laptop■ Projector (to hook into the laptop)■ Overhead projector screen
Input	<ul style="list-style-type: none">■ Concepts and terms to be taught:<ul style="list-style-type: none">■ Global warming■ Ecological Disturbance■ Climate■ Atmosphere■ Fossil Fuel■ Solar Energy■ Ozone Layer■ Ultraviolet Radiation■ Questions that the teacher is asking:<ul style="list-style-type: none">■ What is the greenhouse effect?■ What is the ozone layer and why is it important?■ What are the things that are damaging the ozone layer?■ Why is this all a big deal - what happens when the ozone layer is destroyed?■ As citizens of Earth, what can we do to help reduce gas?
Modeling	<ul style="list-style-type: none">■ Demonstration or showing of concepts or skills<ul style="list-style-type: none">■ The teacher will use his/her laptop and will access this webpage http://www.epa.gov/globalwarming/kids/global_warming_version2.html● This webpage will provide an interactive movie outlining a step-by-step procedure of various fossil fuels and their effects on the atmosphere.
Guided Practice	<ul style="list-style-type: none">■ Have students debate whether “global warming” exists and, if so, whether it is genuinely threatening our environment, or not.
Independent Practice	<ul style="list-style-type: none">■ Divide the students into the same group, and have them teach a topic with regards to the “greenhouse effect”. This can be done in a variety of methods such as: a rap, a song, a drama skit, through the use of charts, graphs, power-point’s, and videos.
Closure	<ul style="list-style-type: none">■ Students will be divided up into two separate teams and will participate in a game of Weather Watch Jeopardy- the Greenhouse Edition.■ The teacher will have cue cards with a variety of questions ranging from terms to the consequences of apparent pollutants (i.e. fossil fuels) being distributed throughout the atmosphere.■ The team that reaches 100 points first is the winner and a prize will be given to all students for participating.
Evaluation	<ul style="list-style-type: none">■ A four point rubric will be attached to the student’s group ‘greenhouse’ model as well as their independent practice.