



## Summer Assignment grades 11 & 12

### Global Warming, is it our fault?

Welcome to 11th/12th grade science. This year you will either be taking, Chemistry, Earth Science, Forensics, Physics or Environmental Science. The following assignment can pertain to any of these subjects. You are asked to write a detailed paper explaining global warming, its causes effects and impact on humanity.

**Please follow the outline below, in order.**

*Use double space and skip a space between paragraphs. This assignment will be do September 16<sup>th</sup>, 2016.*

1. **Title** – page with name
2. **Introduction** – one paragraph, which includes the following.
  - a. What is global warming?
  - b. Why is global warming such a concern to scientists and the public?
  - c. Whom do you believe is responsible?
    - Humans
    - Nature
    - Both humans and nature
1. **Body** – answer the questions in paragraph form in order
  - a. What are the effects of global warming? List 3
  - b. How does light become heat and what is the scientific name for heat?
  - c. Describe what a green house is and how it works. Explain what happens to light as is passes into the green house. Explain why the heat energy creates cannot escape.
  - d. Explain what the earth would be like if there were not greenhouse gases.
  - e. List at least 3 greenhouse gases and describe their source.
  - f. What does CFC stand for (It is a greenhouse gas) Where do CFC's come from?

In addition to being a greenhouse gas, what do CFC do to the atmosphere?
  - g. What are the major elements found in the earth's atmosphere, troposphere and lithosphere

- h. Write the chemical formula for ozone, carbon dioxide, CFC, Methane and nitrous oxide  
Describe why ozone is so important to life on earth and what could happen if it were to be depleted.
  - i. Explain how CFC create more greenhouse gas and destroy the ozone layer at the same time  
Show the formula for the breakdown of ozone and the formation of CO<sub>2</sub> from CO (carbon monoxide).
  - j. What processes in the environment help to control greenhouse gases?
  - k. How have these gases increased or decreased over the past 100,000 years?
  - l. What could be causing the increased temperatures on the planet other than the greenhouse effect?
2. **Your point of view** - In a separate paragraph, indicate whether you think that global warming is caused solely by humans, solely by nature or a combination. List 3 or more pieces of evidence to support your view.  
(Evidences can be in the form of graphs or diagrams, but you must explain the graphs or diagrams.)  
(Please list each evidence separately.)
3. **Conclusion** – How has your research on global warming affected your view of the future. Do you have concerns? What part will you play in the future of the planet?
4. **Citations – do not plagiarize!!!**  
If you copy from a source, make sure you list where it came from either within the paper or at the end.