

# Global Climate Change Web-quest

Over the last hundred years the climate of the earth has undergone some extreme changes due to human interaction. These changes continue today and are actually worsening as each day passes. Today you will be trying to identify the causes, the effect and what we can possibly do to help reduce our impact and try to return the climate to its natural level.

Part one: Climate change and its causes

One of NASA's jobs is to measure changes to the atmosphere and climate. Go to the following NASA websites to find how the global climate is changing and what is causing this.

<http://climate.nasa.gov>

Throughout this web-quest, you will click on the tabs on the left side of your screen to read information, analyze data and find the answers to the questions below.

## **Answer the following questions using the tabs "Evidence" and "Causes":**

1. Describe 4 ways that we know the global climate is changing
2. How has the global climate changed over the past 100 years
3. What are four greenhouse gases that are causing these changes?
4. Carbon dioxide is a major cause of global warming. How has the amount of carbon dioxide changed over the past 100 years?
5. What are 3 things that are causing these changes?
6. How are humans affecting global climate change?
7. What is solar irradiance and how does it affect climate on Earth?

Part two: Climate Change and its Effects

The change in the global climate is altering the planet in many ways.

## **Answer the following questions using the tab "Effects":**

8. One effect of Global Climate change is increased temperature, how much will the temperature rise?
9. Why is the changing of temperature a big deal? (even if it just changes a little bit)  
Hint: what caused the last ice age?
10. Pick any one of the three areas listed and describe two ways each place will change as the climate changes.
11. What are five changes to the planet that are most likely to happen because of the change in global climate?

Continue on back

**Answer the following questions using the tab “Interactives”:**

12. Use the Climate time machine to see how things on Earth are changing due to climate change.
  - a. For each interactive, describe how the planet is changing due to the climate change.
13. Take any of the interactive quizzes. List 5 things that you learned by taking the quiz.

What can we do?

Go to the following website to come up with some ways that we can stop or slow down the climate change.

<http://www.epa.gov/climatechange/wycd/index.html>

14. Describe 8 things that you can do to help stop the global climate change.

**Analysis:**

15. Write a paragraph that explains how the global climate is changing, what is causing it, how the planet is changing because of it and what we can do to help.