

Name: _____ Block: _____ Date: _____

Climate Change Web Quest

GREENHOUSE GASES

1. What are greenhouse gases?

2. Collect data about the major types of greenhouse gases produced by humans:

<i>Name of Gas</i>	<i>Percent of warming it is causing</i>	<i>Where it comes from</i>	<i>How long it stays in the atmosphere</i>
Carbon Dioxide			
Methane			
Nitrous oxide			
Fluorinated gases			
Other gases			

THE CLIMATE IN THE PAST

3. How old is Earth?

4. Look at the climate graphs. Name three times in history that CO₂ levels have been very high:

5. Now look at both graphs. What happens to the temperature on Earth when CO₂ levels rise? What is your evidence?

6. Did people cause climate change millions of years ago? How do you think scientists know the answer to this?

7. How do changes in Earth's orbit impact climate?

8. How do changes in the Sun's energy impact climate?

9. How does photosynthesis impact climate?

10. How do volcanic eruptions impact climate?

RULED OUT

11. Could changes in the Sun's energy be responsible for current global warming? Explain.

12. Could changes in Earth's orbit be responsible for current global warming? Explain.

13. Could volcanic eruptions be responsible for current global warming? Explain.

SIGNS OF CLIMATE CHANGE (use links on the sidebar)

14. Higher Temperatures - What is happening now and what is expected to happen in the future?

15. Changing Rain and Snow Patterns – What is happening now and what is expected to happen in the future?

16. Warmer Oceans – Look at the graph, how many degrees has the average ocean temperature increased since 1880?

17. Rising Sea Level – How many inches has the sea level increased since 1870?

18. Rising Sea Level – How many inches could sea level increase by the end of 2099?

19. Wilder Weather – How do ocean temperatures impact hurricanes?

20. Shrinking Sea Ice – According to the graph, how many miles of sea ice have melted since 1979?

21. Shrinking Sea Ice – Why does it matter that sea ice is shrinking?

WHAT YOU CAN DO

22. Explain three ways you can reduce greenhouse gas emissions: