Climate Change Web Quest

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_ Hour:\_\_\_\_\_

Go to the following site, read and answer the questions below on a separate sheet of paper.

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

1. Why is Earth getting warmer?

Click on the link “Learn more about the climate.”

2. Compare and contrast weather and climate.

Weather is:

Climate refers to:

3. What is the climate in one area called?

4. What is the climate around the world called?

5. What is one of the most important trends that scientists look at when analyzing global climate?

6. What is global warming?

7. Rising global temperatures lead to other changes around the world such as:

8. Looking at the diagram “Climate Connection”

a. What 4 trends can a warmer atmosphere result in?

1.

2.

3.

4.

b. What are the results of more evaporation? (Name 3)

c. What are the results of warmer oceans? (Name 2)

d. What are the results of melting snow and ice? (Name 2)

e. What are the results of changing conditions for plants and animals? (Name 2)

9. Answer the two “Climate Challenge” questions at the bottom of the page. Write out entire answers.

1.

2.

Go back to “Learn the Basics.” Click on “Find out how and why the climate is changing.”

10. What are greenhouse gases?

11. What is the concern regarding greenhouse gases in regards to global climate?

12. Click on “The Greenhouse Effect.”

a. Watch the video, if needed, and explain the process of the greenhouse effect.

b. Diagram the greenhouse effect.

13. Click on “Greenhouse Gases.”

a. What are the three factors affecting climate change in regards to greenhouse gases? Explain each.

1.

2.

3.

b. What is the most important greenhouse gas emitted by humans?

c. From where do greenhouse gases come?

d. What is the most abundant source of greenhouse gas emission in the United States?

e. What does the Emissions of Greenhouse Gases Worldwide at the bottom of the page show is happening to the amounts of greenhouse gases that are emitted?

14. Click on “All About Carbon Dioxide.”

a. Watch the video and summarize the carbon cycle and how people are changing its natural balance.

b. What are people doing in terms of carbon dioxide leading to global warming?

Go back to “Learn the Basics.” Click on “Learn how the climate changed in the past.”

15. What clues tell us that the Earth’s climate has changed many times before?

16. What is the pattern revealed in the graphs?

17. Read the box to the right of the page. Why is today’s climate change different?

1.

2.

3.

18. What are some natural factors that have changed the Earth’s climate in the past?

19. Explore the links at the bottom of the page and briefly summarize how one of the factors has changed the Earth’s climate in the past.

20. Click on “The Signs of Climate Change” under the tab “See the Impacts” at the top of the page. Pick a sign of climate change and summarize the following:

a. What’s happening now?

b. What will happen in the future?

c. Why does it matter?