

Unit 2: Weather, Climate, Global Warming, & Greenhouse Effect Webquest

(live links on my website)

Number and Answer on your OWN paper! Don't write on THIS!

Part 1: Weather vs. Climate

Use the following link to answer the questions below. <http://www.weatherwizkids.com/weather-climate.htm> . Read this page from the top down to find the following answers

1. The weather is just the state of the atmosphere at any time, including things such as _____, _____, _____, & _____

2. Daily changes in weather are due to _____ and _____

3. Seasonal changes are caused by _____

4. In one or two sentences, describe what causes weather?

What are the two sides of a mountain? _____ and _____

5. Explain how mountains affect weather and climate?

6. Draw and label each step of the water cycle in the space below:

7. What effect do the seasons, sun, and moon have on the Earth? Explain in the spaces after each, below:

Seasons -

Sun-

Moon-

8. How do the leaves change color? _____

No other questions from this page, but continue to read the rest of the page for information

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Part 2: Climate Change, Global Warming, Greenhouse Effect

Use the following link to answer the questions below starting at #2. <https://archive.epa.gov/climatechange/kids/basics/index.html>

1. Watch "**Climate Change Basics**" video by clicking on the link.
2. Under the title **Learn the Basics**. Read the Passage.
 - a. Explain why the Earth is getting warmer.

- b. What other changes are happening around the world because of the Earth getting warmer?

3. Click on **Learn more about the Climate**. (toward the bottom of the page, 1st star)
When scientists talk about *global climate change*, what are they actually talking about _____

* Test your knowledge of climate with the two **Climate Challenge** questions at the bottom of this page.

Go back to the **Learn the Basics** page. (green tab at the top)

4. Click on **Find out why and how the climate is changing**. (toward the bottom, 2nd star)
 - a. More than _____ years ago, people around the world started burning large amounts of _____, _____, and natural gas to power their _____, factories, and _____.
 - b. Heat-trapping gases are called what? _____.

Answer the **Climate Challenge** questions. (at the bottom of the page)

5. Click on **The Greenhouse Effect**. (just above the **Climate Challenge** questions)
 - a. If there were no greenhouse gases trapping heat in the atmosphere what would the Earth be like? _____
 - b. Click on "**Play the video to learn more**"
 - c. Why does the surface of the road feel hot even when it's night outside? _____
6. Double-click on the bubble above the round picture labeled, "**Greenhouse Gases**"
 - a. What is the purpose of Greenhouse gases? _____
 - b. Looking at the pie graph, what is the percentage for the following greenhouse gases?
Methane _____ Carbon Dioxide _____ Other Gases _____ Nitrous Oxide _____
 - c. Where do the majority of greenhouse gases come from relating to everyday activities?
_____ (examine the other graphs for the answers)
 - d. How much did the total amount of greenhouse gases increased from 1990-2005? _____

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At top, click on the bubble above the round picture labeled "**All About Carbon Dioxide**"
Click on the link, "**Check out this video to learn more about the carbon cycle and how people are changing its natural balance**" and watch this video and read the page.

Where is carbon stored throughout the Earth?

Why is the amount of carbon dioxide increasing in the atmosphere? _____

Under "See the Impacts" click on "The Signs of Climate Change" or just: Click [here](#) to go to the page for the next question. Click on **Higher Temperatures** in the pic.

7. If we keep adding greenhouse gases into the atmosphere at the current rate we are now, what would be the average increase in temperatures around the world?

8. Go back to "The Signs of Climate Change" or just Click [here](#) to go to the page for next questions. Click on the **Rising Sea Level** in the pic. Read the page.

j. What are the two reasons sea levels are rising? _____

9. If people keep adding greenhouse gases to the atmosphere, what will be the increase in sea levels from 1990 to 2099. _____

10. Go back to "The Signs of Climate Change" or just Click [here](#) to go to the page for next questions. Click on **Warmer Oceans** in the picture. Read the page.

k. At what rate is the top layer of the ocean warming by, each decade? _____

At the Top of the Page, Click on **Be Part of the Solution**, then **What you can do** or click [Here](#) to go to the correct page

Read through each of the links on the page.

Write a one sentence summary for each topic, of what you learned from the information read.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Once you are finished, go to **Think like a Scientist** at the top of the page and EXPLORE under this tab until the end of class.