

Chemistry Assignment 1

Name: _____ Period: _____ Teacher: _____

What's the difference between weather and climate?

Do Part 1 before you read the article!

Part 1: Are they talking about climate or weather?



People like to talk about conditions that affect their lives. Climate and weather are two of those conditions. For the following statements, decide whether the statement has to do with weather or climate and click the appropriate bubble.

Climate Weather

1. What shall I wear today?
2. What equipment do I need for a camping trip next summer?
3. It has rained on my birthday for the past three years.
4. We just got three feet of snow in March. So much for global warming.
5. I wonder when I should plant the tomato seeds in my garden.
6. Our state experienced the worst drought since records began more than 120 years ago.
7. News Flash! The drought in California has ended with the first significant storm this year dumping more than 10 inches of rain in many locations and filling most of the reservoirs to pre-drought conditions.
8. We can't get low-cost flood insurance for our house anymore. The insurance company says this area is too big a risk.

Explain your thinking. What rule or reasoning did you use to decide if a statement is related to climate or weather?

Do Parts 2 and 3 after you read the article!

Part 2: Read the article “What’s the difference between weather and climate” and answer the following questions after you read the article.

It may seem counterintuitive, but cold weather events like these do not disprove global warming, because weather and climate are two different things.

1. Which sentence from the article BEST supports this idea?
 - a. Weather refers to the short-term conditions of the lower atmosphere, such as precipitation, temperature, humidity, wind direction, wind speed, and atmospheric pressure.
 - b. The atmospheric conditions that influence weather are always fluctuating, which is why the weather is always changing.
 - c. While weather refers to short-term changes in the atmosphere, climate refers to atmospheric changes over longer periods of time, usually 30 years or more.
 - d. Climate conditions vary between different regions of the world and influence the types of plants and animals that live there.

2. Which of the following claims does the author support the LEAST?
 - a. Climate conditions vary between different regions of the world.
 - b. Humans' burning of fossil fuels is a leading factor in climate change.
 - c. The global climate has always been in a state of flux.
 - d. Forecasts are important and useful for many reasons.

3. Which sentence BEST summarizes how the changing climate has affected weather?
 - a. The changing climate has contributed to conditions that have made extreme weather events more intense and more frequent.
 - b. The changing climate has increased the overall temperatures and amounts of rain locations around the globe are experiencing.
 - c. The changing climate has created violent winds and dry conditions leading to the weather phenomenon called the Aurora Australis.
 - d. The changing climate has allowed the weather in most locations to remain consistent and steady over the past 100 years.

4. What role does confusion over weather and climate play in the effort to address global warming?
 - a. Because people sometimes confuse weather with climate, they try to make small changes to greenhouse gas emissions that have little effect on global warming.
 - b. Because people sometimes confuse weather with climate, there has been little urgency to address global warming when the weather feels normal in the short term.
 - c. Because people sometimes confuse weather with climate, efforts to fight global warming have only been embraced by a handful of countries directly affected by it.
 - d. Because people sometimes confuse weather with climate, participation in panels on global warming and the Paris Agreement increases when the weather is hot.

Part 3: How did reading the article change your understanding of the difference between climate and weather?

Question 1: Review your answers for part 1. Do you still agree with all your answers?

a) If not, choose one statement and using evidence from the article explain why you now disagree with your answer.

b) If you do still agree with all your answers pick one statement from the list and using evidence from the article, explain how the article supports that your answer is correct.

Question 2: How would you revise your rule or reasoning to decide if a statement is related to climate or weather after reading this article?