

Earth Science

The Weather

Weather is made up of several different components. In order to understand weather, you must understand air temperature, clouds, wind and precipitation (rain and snow). Weather is never exactly the same everywhere. It's always changing, and depending on what climate you live in, weather can change **drastically**¹ from mile to mile.

In America we use the Fahrenheit scale to measure air temperature. When the Fahrenheit scale rises, it shows us that the temperature is hotter. When the scale goes down, that means the temperature went down, getting cooler.

Low-pressure systems are associated with clouds and precipitation, while high-pressure systems are normally associated with dry weather and mostly clear skies. Clouds are made up of millions of tiny ice **crystals**². Clouds high up in the sky are very cold, and look very fluffy. Lower clouds in warmer air look sharper. From clouds, we get rain and snow. Humidity is the measure of water **vapor**³ in the air. On a beautiful day, there is low humidity. On a foggy day there is high humidity. On a rainy day there is 100% humidity.

¹ **drastic** - extreme

² **crystal** – a solid piece of matter that has a regular arrangement of flat surfaces and angles between the surfaces

³ **vapor** – a gas formed from a solid or liquid

Name: _____ Date: _____

1. According to the passage, what is a “component?”
 - a. A part
 - b. A type of cloud
 - c. A type of weather
 - d. Understanding
2. The second paragraph describes
 - a. Air pressure
 - b. Air temperature
 - c. Clouds
 - d. Humidity
3. On a very foggy day, humidity would probably reach around
 - a. 20%
 - b. 30%
 - c. 10%
 - d. 80%
4. What is the main focus of this passage?
 - a. Facts about weather
 - b. Facts about clouds
 - c. Precipitation
 - d. Humidity
5. In the United States what is used to measure air temperature?
 - a. Celsius scale
 - b. Fahrenheit scale
 - c. Morse Scale
 - d. Barometric scale

6. Use evidence from the text to explain why there would likely be low humidity when there is a high-pressure system in your area?

7. Use details from the text to describe clouds.

8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

Humidity is the measure of water vapor in the air, _____ on a rainy day there is 100% humidity.

- a. for
- b. so
- c. yet
- d. but

9. Answer the following questions based on the sentence below.

In the United States, people use the Fahrenheit scale to measure air temperature.

Who? people

(use) What? _____

Where? _____

Why? _____

10. **Vocabulary Word:** vapor: a gas formed from a solid or liquid.

Use the vocabulary word in a sentence: _____

Teacher Guide and Answers

Passage Reading Level: Lexile 730

Featured Text Structure: Descriptive – the writer explains, defines or illustrates a concept or topic

Passage Summary: Weather is made up of several different components. In order to understand weather, you must understand air temperature, clouds, wind and precipitation (rain and snow).

1. According to the passage, what is a “component?”
 - a. **A part**
 - b. A type of cloud
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 - a. Air pressure
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3. On a very foggy day, humidity would probably reach around
 - a. 20%
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 - d. **80%**
4. What is the main focus of this passage?
 - a. **Facts about weather**
 - b. Facts about clouds
 - c. Precipitation
 - d. Humidity
5. In the United States what is used to measure air temperature?
 - a. Celsius scale
 - b. **Fahrenheit scale**
 - c. Morse Scale
 - d. Barometric scale

6. Use evidence from the text to explain why there would likely be low humidity when there is a high-pressure system in your area?

Suggested answer: High-pressure systems usually mean dry weather and mostly clear skies. The passage also states that there is low humidity during a beautiful day. Since beautiful days usually mean dry weather and clear skies, there would likely be low humidity when there is a high-pressure system.

7. Use details from the text to describe clouds.

Suggested answer: Clouds drift across the sky when air pressure is low. Clouds are made up of millions of tiny ice crystals. Clouds high up in the sky are very cold, and look very fluffy. Lower clouds in warmer air look sharper. From clouds, we get rain and snow.

8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

Humidity is the measure of water vapor in the air, _____ on a rainy day there is 100% humidity.

- a. for
- b. so**
- c. yet
- d. but

9. Answer the following questions based on the sentence below.

In the United States, people use the Fahrenheit scale to measure air temperature.

Who? people

(use) What? **the Fahrenheit scale**

Where? **in the United States**

Why? **to measure air temperature**

10. **Vocabulary Word:** vapor: a gas formed from a solid or liquid.

Use the vocabulary word in a sentence: answers may vary.