

## Quiz 4

- Due Apr 29 at 11:59pm
- Points 100
- Questions 10
- Available until Apr 29 at 11:59pm
- Time Limit 15 Minutes

## Instructions

This quiz is on the atmosphere (lecture 12 and chapter 8).

- Time limit: 15 minutes
- The timer continues even if you exit the quiz
- One attempt
- Open book/note

Quizzes have no due dates, but all quizzes must be completed by April 29, 2024.

## Attempt History

	Attempt	Time	Score
<b>LATEST</b>	<b><u>Attempt 1</u></b>	7 minutes	100 out of 100

Score for this quiz: 100 out of 100

Submitted Apr 12 at 1:36pm

This attempt took 7 minutes.



Question 1

10 / 10 pts

What is an atmospheric front?

- ☐ the location where an air mass first develops its defining characteristics

Correct!

- ☒ the boundary between different air masses

- ☐ the location in an air mass where the isobars start to become more widely spaced

- ☐ the direction an air mass is moving in response to the pressure gradient force, friction, and the Coriolis effect



Question 2

10 / 10 pts

Using the wind directions in this video, what type of air mass is located in the middle of Nebraska?

0:00 / 0:03

Correct!

- ☒ Low pressure
- ☐ High pressure



Question 3

10 / 10 pts

An occlude front forms when

- ☐ two warm fronts combine.

Correct!

- ☒ an advancing cold front overtakes a warm front.
- ☐ an advancing warm front overtakes a cold front.
- ☐ two cold fronts combine.



Question 4

10 / 10 pts

Atmospheric pressure is a result of

Correct!

- ☒ the weight of the column of air above a location.
- ☐ winds blowing over the surface.
- ☐ heat contrasts on the surface.
- ☐ the density of the atmosphere.



## Question 5

10 / 10 pts

The term that describes the average atmospheric conditions over long time periods, like decades, is \_\_\_\_\_.

- ☐ median weather
- ☐ steady state

Correct!

- ☒ climate
- ☐ weather



## Question 6

10 / 10 pts

High pressure air masses form when \_\_\_\_\_.

- ☐ relatively warm air sinks
- ☐ relatively cooler air rises
- ☐ relatively warm air rises

Correct!

- ☒ relatively cooler air sinks



## Question 7

10 / 10 pts

The most abundant gas found in the Earth's atmosphere is

- ☐ oxygen.

Correct!

- ☒ nitrogen.
- ☐ argon.
- ☐ carbon dioxide.



## Question 8

10 / 10 pts

True/False: Heat is the measurement of how fast atoms are moving and describes how hot or cold a substance is.

- ☐ True

Correct!

☒ False



### Question 9

10 / 10 pts

The magnitude of the Coriolis force \_\_\_\_\_ as the size of an object increases.

☐ remains the same

Correct!

☒ increases

☐ decreases



### Question 10

10 / 10 pts

When water evaporates it \_\_\_\_\_.

☐ becomes denser

Correct!

☒ absorbs heat

☐ starts to form clouds

☐ releases heat

Quiz Score: 100 out of 100

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## Attempt History

	Attempt	Time	Score
LATEST	<u>Attempt 1</u>	12 minutes	100 out of 100
Score for this quiz: 100 out of 100			
Submitted Apr 10 at 1:45pm			
This attempt took 12 minutes.			
⋮			
Question 1			
10 / 10 pts			
What is the most important control on the amount of water vapor that the atmosphere can hold?			
<input type="radio"/> altitude			
Correct!			
<input checked="" type="radio"/> temperature			
<input type="radio"/> atmospheric pressure			
<input type="radio"/> wind speed			
⋮			

Question 2

10 / 10 pts

High pressure air masses form when \_\_\_\_\_.

☐ relatively cooler air rises

Correct!

☒ relatively cooler air sinks

☐ relatively warm air rises

☐ relatively warm air sinks



Question 3

10 / 10 pts

99.9% of the Earth's atmosphere exists within \_\_\_\_\_ of Earth's surface.

☐ 100 kilometers

Correct!

☒ 50 kilometers

☐ 5.0 kilometers

☐ 0.5 kilometers

☐ 25 kilometers



Question 4

10 / 10 pts

Latent heat is \_\_\_\_\_.

☐ longwave radiation that is absorbed by greenhouse gases and reradiated back down toward Earth

☐ energy that earth radiates outward toward the atmosphere

☐ energy that Earth's atmosphere receives from the sun

Correct!

☒ energy that is absorbed, stored and released as water changes between liquid, solid, and gas



Question 5

10 / 10 pts

When water evaporates it \_\_\_\_\_.

☐ starts to form clouds

Correct!

☒ absorbs heat

☐ releases heat

☐ becomes denser



Question 6

10 / 10 pts

The most abundant gas found in the Earth's atmosphere is

☐ carbon dioxide.

☐ oxygen.

Correct!

☒ nitrogen.

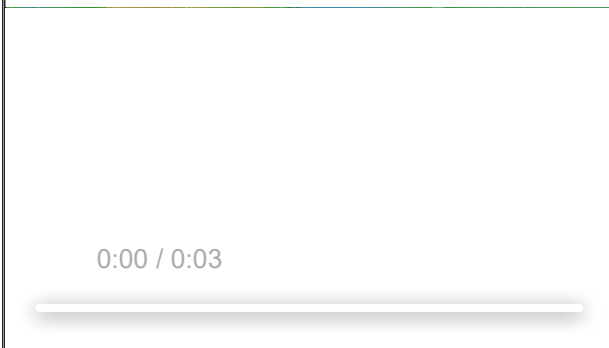
☐ argon.



Question 7

10 / 10 pts

Using the wind directions in this video, what type of air mass is located in the middle of Nebraska?



☐ High pressure

Correct!

☒ Low pressure



Question 8

10 / 10 pts

An occlude front forms when

Correct!
<input checked="" type="radio"/> an advancing cold front overtakes a warm front.
<input type="radio"/> an advancing warm front overtakes a cold front.
<input type="radio"/> two cold fronts combine.
<input type="radio"/> two warm fronts combine.
⋮
Question 9
10 / 10 pts
What is an atmospheric front?
<input type="radio"/> the direction an air mass is moving in response to the pressure gradient force, friction, and the Coriolis effect
<input type="radio"/> the location in an air mass where the isobars start to become more widely spaced
<input type="radio"/> the location where an air mass first develops its defining characteristics
Correct!
<input checked="" type="radio"/> the boundary between different air masses
⋮
Question 10
10 / 10 pts
The term that describes the average atmospheric conditions over long time periods, like decades, is _____.
<input type="radio"/> median weather
<input type="radio"/> weather
Correct!
<input checked="" type="radio"/> climate
<input type="radio"/> steady state
Quiz Score: 100 out of 100



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## Attempt History

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<b>LATEST</b>	<b><u>Attempt 1</u></b>	11 minutes	100 out of 100

Score for this quiz: 100 out of 100

Submitted Apr 23 at 7:32pm

This attempt took 11 minutes.



Question 1

10 / 10 pts

High pressure air masses form when \_\_\_\_\_.

Correct!

- ☒ relatively cooler air sinks
- ☐ relatively warm air rises
- ☐ relatively warm air sinks
- ☐ relatively cooler air rises



Question 2

10 / 10 pts

Atmospheric pressure is a result of

- ☐ winds blowing over the surface.
- ☐ heat contrasts on the surface.

Correct!

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- ☐ energy that earth radiates outward toward the atmosphere

Correct!

- ☒ energy that is absorbed, stored and released as water changes between liquid, solid, and gas



### Question 4

10 / 10 pts

99.9% of the Earth's atmosphere exists within \_\_\_\_\_ of Earth's surface.

- ☐ 5.0 kilometers
- ☐ 0.5 kilometers

Correct!

- ☒ 50 kilometers
- ☐ 100 kilometers
- ☐ 25 kilometers



### Question 5

10 / 10 pts

What is an atmospheric front?

- ☐ the direction an air mass is moving in response to the pressure gradient force, friction, and the Coriolis effect

Correct!

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- ☐ the location where an air mass first develops its defining characteristics



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10 / 10 pts

True/False: Heat is the measurement of how fast atoms are moving and describes how hot or cold a substance is.

☐ True

Correct!

☒ False

## Question 7

10 / 10 pts

The most abundant gas found in the Earth's atmosphere is

☐ argon.☐ oxygen.

Correct!

☒ nitrogen.☐ carbon dioxide.

## Question 8

10 / 10 pts

When water evaporates it \_\_\_\_\_.

☐ starts to form clouds☐ releases heat

Correct!

☒ absorbs heat☐ becomes denser

## Question 9

10 / 10 pts

The term that describes the average atmospheric conditions over long time periods, like decades, is \_\_\_\_\_.

☐ weather☐ steady state

Correct!

☒ climate☐ median weather



## Question 10

10 / 10 pts

The magnitude of the Coriolis force \_\_\_\_\_ as the size of an object increases.

Correct!

- ☒ increases
- ☐ remains the same
- ☐ decreases

Quiz Score: 100 out of 100