

Introduction to Virtual Learning

HS Earth Science Air Resources

May 18, 2020



High School Earth Science Lesson: May 18, 2020

Objective/Learning Target:

Students will be able to describe the natural resources found in the air.



Warm Up Questions

1. How is a nonrenewable resource different from a renewable resource?

2. Can you name two resources found in the air?



Warm Up Questions

1. How is a nonrenewable resource different from a renewable resource? A renewable resource can be re-formed (naturally or by man) in a relatively short amount of time. Non-renewable resources cannot be restored.

2. Can you name two resources found in the air? Your answers may vary- but some may include things like oxygen, water, carbon, nitrogen, wind.



Lesson Activity: Reading and Note Taking

To begin, get out a sheet of paper and something to write with.

In this part of the lesson, you will be doing a short reading task and answering a few questions about the resources found in the air. As you do the reading, take notes over the main ideas and new vocabulary terms you find in the reading.

When you are ready, click here to begin the reading assignment.



Practice Questions: Air as a Resource

- 1. Why is carbon in the air important to plants?
- 2. How does breathing contribute to the atmosphere?
- 3. How do plants use nitrogen from the air?
- 4. Plants cannot absorb nitrogen from the air- so how do they acquire this gas?



Practice Questions: Air as a Resource Answer Key

- 1. Why is carbon in the air important to plants? Plants need carbon dioxide to do photosynthesis.
- 2. How does breathing contribute to the atmosphere? Animals release carbon back into the atmosphere during breathing.
- 3. How do plants use nitrogen from the air? Nitrogen is needed to build proteins in plant cells.
- Plants cannot absorb nitrogen from the air- so how do they acquire this gas? Plants rely on nitrogen fixing bacteria to capture nitrogen gas and convert it to a form plants can use



Practice Questions: Diagram Practice: Use the diagrams to answer the questions on the next page





Practice Questions:

- 1. What process takes carbon dioxide out of the atmosphere?
- 2. What 2 processes put carbon dioxide back into the atmosphere?
- 3. What bacterial process takes nitrogen out of the atmosphere?
- 4. What process takes nitrogen in the soil and returns it to the atmosphere?



Practice Questions: Answer Key

- 1. What process takes carbon dioxide out of the atmosphere? Photosynthesis
- 2. What 2 processes put carbon dioxide back into the atmosphere? Cellular respiration and combustion
- 3. What bacterial process takes nitrogen out of the atmosphere? Nitrogen fixation
- 4. What process takes nitrogen in the soil and returns it to the atmosphere? Denitrification



Extra Resources:

Want to learn how NASA is monitoring carbon levels in the air- check out this article

Want to learn more about sources of carbon dioxide in the air- check out this article

Want to learn more about the different types of resources we get from air- <u>check</u> out this article