

# Warm-Up

## Air Resources



### Lesson Question



### Lesson Goals

Describe the  as a natural resource.

Describe the importance of clean air.



### Words to Know

Fill in this table as you work through the lesson. You may also use the glossary to help you.

fossil fuels	a fuel formed from the remains of <input type="text"/>
photosynthesis	the process by which plants make <input type="text"/> using carbon dioxide from the atmosphere
respiration	the process by which plants produce <input type="text"/> using oxygen from the atmosphere

# Warm-Up

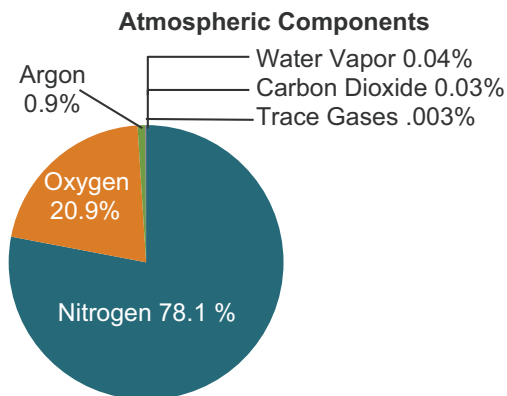
## Air Resources



### Components of Earth's Atmosphere

The atmosphere is a layer of  around Earth.

- Supports life on Earth
  - Provides  to breathe
  - Provides rain for  and
  - Protects against Sun's  rays
- Made up of different gases

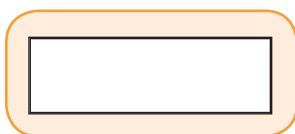


### The Structure of the Earth System

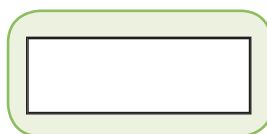
Earth is divided into four parts, or spheres.



• The layer of gases surrounding Earth



• The water on Earth



• The hard outer part of Earth



• The part of Earth that contains living things

# Instruction

## Air Resources

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### Atmosphere and Earth's Spheres

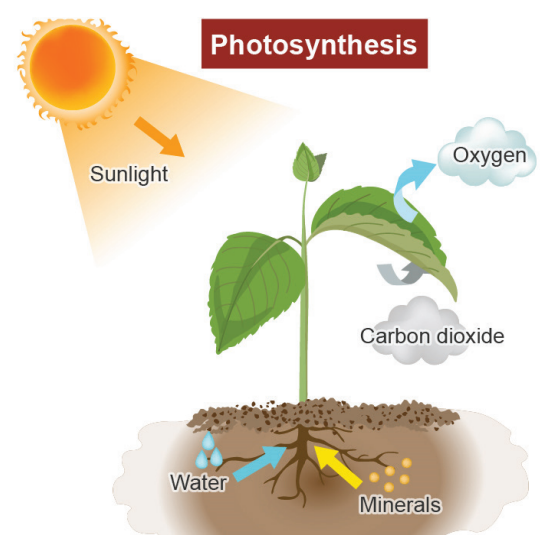
The atmosphere is a  resource and plays a key role in many of Earth's .

- Cleans and replenishes Earth's  supplies
- Provides water for
- Produces
- Cycles gases
  - , oxygen, carbon dioxide

### Atmosphere and Biosphere

The atmosphere recycles  through interactions with the biosphere.

- **Photosynthesis**
  - Plants use , water, , and carbon dioxide from the atmosphere.
  - Plants release  into the atmosphere.



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**Atmosphere and Biosphere****• Respiration**

- use oxygen from the atmosphere and release  dioxide back into the atmosphere.

**Lithosphere and Atmosphere**

are one way the lithosphere interacts with the atmosphere.

- Volcanoes are important to the atmosphere's cycling of .
- They erupt water vapor, carbon dioxide, and .
- Used by plants
- Can affect  weather patterns

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### Clean Air

Clean air is essential to good .

- Clean air provides oxygen to breathe.
- Clean air reduces the risk of illness and other health problems.
- Threats to clean air are largely invisible air pollution caused by:
  - burning of  **fuels.**
  - from industrial processes.
  - smoking, mold, and .

### Effects of Dirty Air on Health

The  effects of dirty air build up over time.

Negative health effects caused by breathing dirty air include:

- allergies.
- asthma.
- learning .
- diseases.
- premature .

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## Indoor Air Pollution

Indoor air pollution is a serious health threat according to the Environmental  Agency (EPA).

- Causes of indoor air pollution include , mold, carbon monoxide, and radon.
- Indoor air pollution appears as  particles.
  - Pass through the body's natural defenses and reach bloodstream through
- Exposure to these pollutants greatly affects human health.
  - Cause impaired  and increase risks of asthma, stroke, heart attack, and other serious illnesses
- Ultrafine particles contribute to 17,000  deaths per year in the United States.

## Keeping Air Clean

Due to the seriousness of air pollution, the United States has taken several key steps to  air and keep it .



- The Clean Air Act established  to study ways to clean up air pollution.
- The  was created to enforce the Clean Air Act.
- The Clean Air Act was improved, and cost-effective pollution reduction was emphasized.

## Summary

## Air Resources

**Lesson  
Question**

What is the importance of clean air as a natural resource?

**Answer**

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**2****Review: Key Concepts**

- The atmosphere is a natural resource.
- The atmosphere interacts with several  of Earth.
- Clean air requires  air pollution.
- Governments regulate pollution to ensure  air for citizens.
- Poor air quality may lead to a variety of health issues if  particles reach the lungs.



# Summary

## Air Resources

*Use this space to write any questions or thoughts about this lesson.*

A large empty rectangular box with a thin blue border, intended for student notes or questions.