

# Lesson 1 Describing Earth's Atmosphere

**Scan** Lesson 1. Read the lesson titles and bold words. Look at the pictures. Identify three facts that you discover about Earth's atmosphere. Record these facts in your Science Journal.

## Main Idea

### Importance of Earth's Atmosphere

I found this on page \_\_\_\_\_.

### Origins of Earth's Atmosphere

I found this on page \_\_\_\_\_.

## Details

**Define** atmosphere, and identify four things the atmosphere does for Earth.

Atmosphere: \_\_\_\_\_

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

**Write** the number of each event on the time line to describe how Earth's atmosphere changed over time.

1. Photosynthetic organisms remove carbon dioxide from the air and release oxygen.
2. Water vapor cools and condenses. Rain falls, evaporates, and eventually accumulates in oceans.
3. Atmosphere contains present levels of carbon dioxide, oxygen, nitrogen, and other gases.
4. Atmosphere is mainly water vapor with a little carbon dioxide and nitrogen.



Early atmosphere

Present time

# Lesson 1 | Describing Earth's Atmosphere (continued)

## Main Idea

### Composition of the Atmosphere

I found this on page \_\_\_\_\_.

I found this on page \_\_\_\_\_.

I found this on page \_\_\_\_\_.

Copyright © Glencoe/McGraw-Hill, a division of The McGraw-Hill Companies, Inc.

## Details

**Assess** information about the atmosphere. Read each statement below. If the statement is true, write true on the line. If the statement is false, write false on the line and rewrite the underlined portion so that it is true.

Earth's atmosphere is mostly made of visible gases, including nitrogen, oxygen, and carbon dioxide.

\_\_\_\_\_

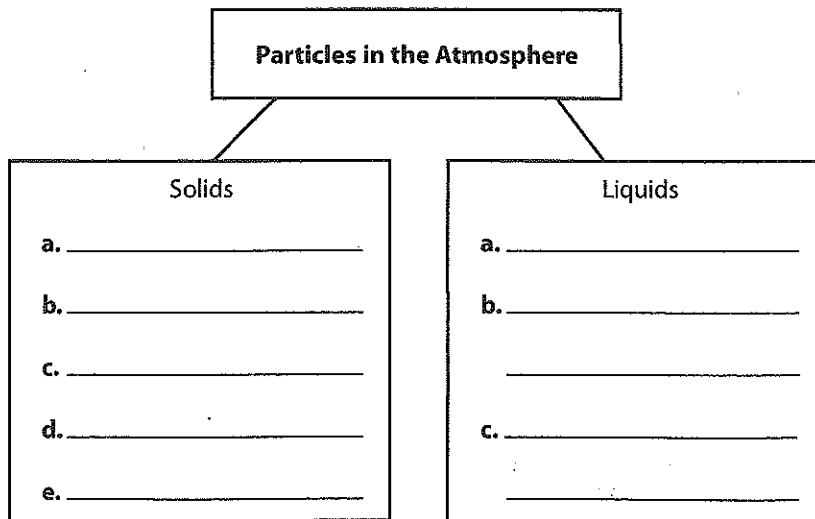
Solid and liquid particles are also present in the atmosphere.

\_\_\_\_\_

**Identify** the gases that make up Earth's atmosphere.

Gases in the Atmosphere	
Percent	Gas
78	
21	
1	a. b. c. d.

**Identify** solid and liquid particles in the atmosphere.



# Lesson 1 | Describing Earth's Atmosphere (continued)

## Main Idea

### Layers of the Atmosphere

I found this on page \_\_\_\_\_.

I found this on page \_\_\_\_\_.


I found this on page \_\_\_\_\_.

I found this on page \_\_\_\_\_.

I found this on page \_\_\_\_\_.

I found this on page \_\_\_\_\_.

## Details

 **Describe** the layers of the atmosphere. First, list the layers in order from the surface to space. Identify the height of each layer. Then describe each layer.

Layers of the Atmosphere	
Layer and Height above Earth's Surface	Description
_____ above 500 km	
Thermosphere	
_____ extends from about 50 km to about 85 km	
Stratosphere	
_____ from the surface to a height of 8–15 km	

**Distinguish** ozone from oxygen.

Ozone	Oxygen

## Lesson 1 | Describing Earth's Atmosphere (continued)

### Main Idea

I found this on page \_\_\_\_\_.

I found this on page \_\_\_\_\_.

### Air Pressure and Altitude

I found this on page \_\_\_\_\_.

### Temperature and Altitude

I found this on page \_\_\_\_\_.

### Details

**Identify** the 2 layers of the atmosphere that contain the ionosphere.

1. \_\_\_\_\_ 2. \_\_\_\_\_

**Explain**, in your own words, how auroras form in the ionosphere.

---



---



---



---

**Describe** the relationship between altitude and air pressure.

As altitude \_\_\_\_\_, air pressure \_\_\_\_\_.

**Identify** the changes in temperature and altitude in the different layers of the atmosphere.

Layer of the Atmosphere	Altitude	Temperature
Troposphere	↑ increases	
Stratosphere	↑ increases	
Mesosphere	↑ increases	
Thermosphere	↑ increases	
Exosphere	↑ increases	

**Connect It** Suppose that you move from a town near the ocean to a town in the mountains. To what atmospheric changes would your body need to adjust?

---



---



---



---



---



---