

# Chapter 11 Atmosphere

## SECTION 1 Atmospheric Basics

### MAIN IDEA

**Scan** Section 1 of your text. Use the checklist below as a guide.

- Read all the section titles.
- Read all bold words.
- Look at all figures and photos and read their captions.
- Think about what you already know about the atmosphere.

*Use your text to define the following term.*

### Review Vocabulary

*atmosphere*

*Use your text to define each term.*

### New Vocabulary

*troposphere*

*stratosphere*

*radiation*

*conduction*

*convection*

*mesosphere*

*thermosphere*

*exosphere*

**Draw** a sketch showing the relative positions of the troposphere, stratosphere, mesosphere, thermosphere, and exosphere.

## SECTION 1 Atmospheric Basics

### MAIN IDEA

#### Atmospheric Composition

Use with pages 282–283.

### DETAILS

**Organize** information about the components of the atmosphere using the prompts provided. Use Figure 1 and other information from your book to help you.

The majority of air is made up of \_\_\_\_\_ (\_\_\_%) and \_\_\_\_\_ (\_\_\_%). \_\_\_\_\_ and \_\_\_\_\_ are two important gases that \_\_\_\_\_ in amount but are critical in determining the amount of \_\_\_\_\_ the atmosphere absorbs. \_\_\_\_\_ is either absorbed or released when water \_\_\_\_\_.

Three solids in the atmosphere are \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

A gas that controls the amount of ultraviolet light that enters the atmosphere is \_\_\_\_\_, a molecule made of three \_\_\_\_\_.

Other gases that can be found in the atmosphere include, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

**Compare and contrast** the characteristics of the different layers of the atmosphere in the table below.

#### Structure of the Atmosphere

Use with pages 284–286.

<i>Layer</i>	<i>Temperature Variation with Altitude</i>	<i>Composition</i>	<i>Special Characteristics</i>
<i>Troposphere</i>			
<i>Stratosphere</i>			
<i>Mesosphere</i>			
<i>Thermosphere</i>			

## SECTION 1 Atmospheric Basics

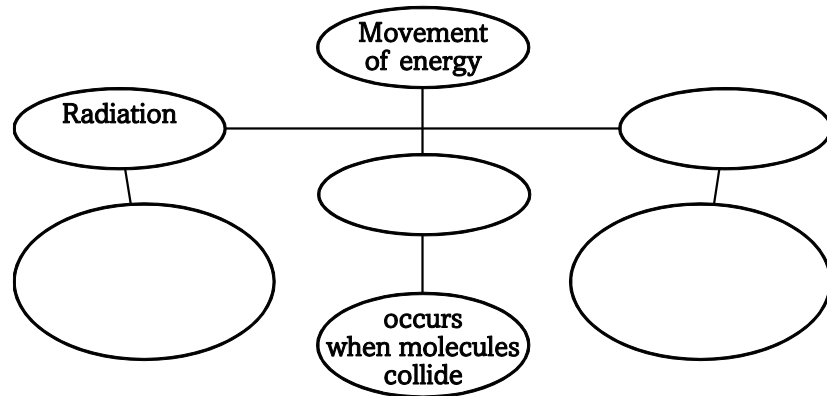
### MAIN IDEA

#### Solar Fundamentals

Use with pages 286–288.

### DETAILS

**Summarize** the three methods of energy transfer from the Sun to Earth's atmosphere by completing the following chart.



**Analyze** how the Sun's energy is affected as it hits Earth's atmosphere.

1. What percent of the sun's solar radiation gets reflected back into space? \_\_\_\_\_
2. What percent of the sun's solar radiation gets absorbed by the Earth?  
\_\_\_\_\_

### REAL-WORLD CONNECTION

CFCs are banned in the United States because they can cause ozone to degrade. Explain which part of our atmosphere this protects and why that is important.

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