

# Chapter 11 Atmosphere

## SECTION 3 Clouds and Precipitation

**MAIN IDEA**

**DETAILS**

**Scan** the section titles, boldface terms, and diagrams found in this section. Write three topics that will be discussed in this section about moisture in the atmosphere.

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

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

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

*Use your text to define each term.*

**New Vocabulary**

*condensation nuclei*

\_\_\_\_\_  
\_\_\_\_\_

*orographic lifting*

\_\_\_\_\_  
\_\_\_\_\_

*cumulus*

\_\_\_\_\_

*stratus*

\_\_\_\_\_

*cirrus*

\_\_\_\_\_

*precipitation*

\_\_\_\_\_

*coalescence*

\_\_\_\_\_

## SECTION 3 Clouds and Precipitation

### MAIN IDEA

#### Cloud Formation

Use with pages 297–299.

#### Types of Clouds

Use with pages 300–301.

#### Precipitation

Use with page 302.

### DETAILS

**Describe** clouds by completing the paragraph below.

\_\_\_\_\_ can form as warm moist air rises, expands, and cools, and cooler air \_\_\_\_\_ in a \_\_\_\_\_. Water vapor in the air condenses on \_\_\_\_\_ such as dust or \_\_\_\_\_. As more and more droplets collect, a \_\_\_\_\_ is formed. Clouds also form from \_\_\_\_\_ where moist air comes in contact with a \_\_\_\_\_ and rises. Another type of cloud forms when \_\_\_\_\_ of different temperatures collide.

**Analyze** the information on types of clouds. In the question spaces provided, turn the bold-faced headings into questions. Then answer your questions.

#### Low Clouds

Question: **What are some low clouds and how do they form?**

Answer: \_\_\_\_\_  
 \_\_\_\_\_

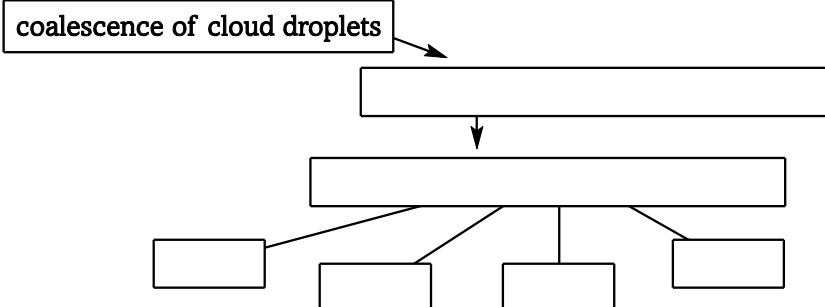
**Middle Clouds** **What are some middle clouds and what are they composed of?**

Question: \_\_\_\_\_  
 Answer: \_\_\_\_\_  
 \_\_\_\_\_

**High Clouds** **What are some middle clouds and what are they composed of?**

Question: \_\_\_\_\_  
 Answer: \_\_\_\_\_  
 \_\_\_\_\_

**Sequence** the formation of precipitation.



## SECTION 3 Clouds and Precipitation

### MAIN IDEA

#### The Water Cycle

Use with page 303.

### DETAILS

**Create** your own diagram of the water cycle. Include the following steps in your diagram: evaporation, precipitation, run off, groundwater, and condensation.

### REAL-WORLD CONNECTION

Clouds are more often formed in areas of higher air pollution than in areas that have cleaner air. Use what you have learned in this chapter to describe the process that causes polluted areas to be cloudier.

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# Tie-It-All-Together

## FURTHER INQUIRY

**Explain** why the smog problem is so intense in Los Angeles. You may want to look at an atlas to answer this question. *Hint: Temperature Inversion*

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**Compare** the difference between ozone in the atmosphere and ozone near Earth's surface.

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