

Name: \_\_\_\_\_

# Physical Science

Chapter 24: Weather and Climate

Pages 746-751

24:1

**Key Concept #1:** How does the atmosphere affect conditions on Earth?

- The atmosphere forms a \_\_\_\_\_ between Earth and space.
- The atmosphere provides conditions \_\_\_\_\_

**Key Concept #2:** What is Earth's atmosphere composed of?

- Earth's atmosphere is a mixture of \_\_\_\_\_, \_\_\_\_\_, and many other gases in which tiny solid and liquid particles are \_\_\_\_\_

**Key Concept #3:** How do pressure and density vary with altitude?

Air Pressure: DEFINE- \_\_\_\_\_

- As altitude increases, \_\_\_\_\_

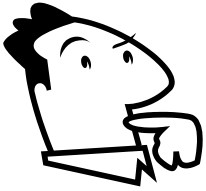
Barometer: DEFINE- \_\_\_\_\_

**Key Concept #4:** What are the characteristics of the major layers of the atmosphere?

### Four Layers of the Atmosphere

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

Term	Description
<i>Troposphere</i>	
<i>Weather</i>	
<i>Stratosphere</i>	
<i>Ozone Layer</i>	
<i>Mesosphere</i>	
<i>Thermosphere</i>	
<i>Ionosphere</i>	



**Key Concept #1:** What happens to the energy Earth receives from the Sun?

- Some solar energy that reaches Earth's atmosphere is \_\_\_\_\_, some is \_\_\_\_\_ by the atmosphere, and some is absorbed by \_\_\_\_\_

Greenhouse Effect: DEFINE- \_\_\_\_\_

**Key Concept #2:** How is energy transferred within the troposphere?

Energy Transfer within the Troposphere

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

**Key Concept #3:** What causes winds?

Wind: DEFINE- \_\_\_\_\_

- Winds are caused by \_\_\_\_\_

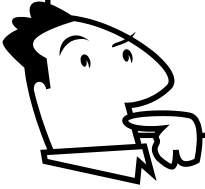
Local Wind: DEFINE- \_\_\_\_\_

- The breezes that occur where land meets a large body of water are examples of \_\_\_\_\_

Seabreeze: DEFINE- \_\_\_\_\_

Land Breeze: DEFINE- \_\_\_\_\_





## Physical Science

Chapter 24: Weather and Climate  
Section 4- Water in the Atmosphere  
Pages 760-764

24:4

**Key Concept #1:** What are some ways in which water condenses in the atmosphere?

Humidity: DEFINE- \_\_\_\_\_

\_\_\_\_\_

Relative Humidity: DEFINE- \_\_\_\_\_

\_\_\_\_\_

Dew Point: DEFINE- \_\_\_\_\_

\_\_\_\_\_

- Water vapor typically condenses as \_\_\_\_\_ , \_\_\_\_\_ ,  
\_\_\_\_\_ , or \_\_\_\_\_

**Key Concept #2:** How do clouds form?

Cloud: DEFINE- \_\_\_\_\_

\_\_\_\_\_

- Clouds form as warm, moist air rises and water vapor \_\_\_\_\_

\_\_\_\_\_

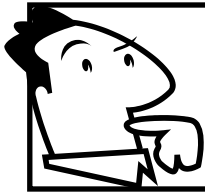
**Key Concept #3:** What are the major forms of precipitation?

Precipitation: DEFINE - \_\_\_\_\_

\_\_\_\_\_

- The most common types of precipitation are \_\_\_\_\_ ,  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ , and  
\_\_\_\_\_





**Key Concept #1:** How do air masses form?

Air Mass: DEFINE- \_\_\_\_\_

- An air mass forms when a large body of air becomes \_\_\_\_\_ over a region of Earth's surface or as air moves over a large, uniform region like an \_\_\_\_\_

**Key Concept #2:** What are four types of fronts?

Front: DEFINE- \_\_\_\_\_

Fronts	Description

**Key Concept #3:** What types of weather are associated with cyclones and anticyclones?

Cyclone: DEFINE- \_\_\_\_\_

- Cyclones are associated with \_\_\_\_\_, and \_\_\_\_\_.

Anticyclone: DEFINE- \_\_\_\_\_

- The weather associated with an anticyclone includes \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

**Key Concept #4:** How do thunderstorms and tornadoes form?

- Thunderstorms form when \_\_\_\_\_
- A tornado forms when \_\_\_\_\_

Term	Description
Lightning	
Thunder	
Tornado	
Hurricane	



# Physical Science

Chapter 24: Weather and Climate

Section 7- Climate

Pages 778-782

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**Key Concept #1:** How is climate different from weather?

Climate: DEFINE- \_\_\_\_\_

- Climate is a description of the pattern of weather over many years.
- The two main factors that determine a region's climate are \_\_\_\_\_ and \_\_\_\_\_

**Key Concept #2:** What factors determine the climate of a region?

- Factors that affect a region's temperature include its \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_

- Factors that affect a region's precipitation include its \_\_\_\_\_, \_\_\_\_\_, and the \_\_\_\_\_

Desert: DEFINE- \_\_\_\_\_

**Key Concept #3:** How has Earth's climate changed over time?

- Climates \_\_\_\_\_ over the long term, and they \_\_\_\_\_ over the short term.

**Key Concept #4:** How can human activities affect Earth's climate?

- One possible climate changes is caused by \_\_\_\_\_

Global Warming: DEFINE- \_\_\_\_\_

