

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

## HW #1 Section 23.2 Weathering and Erosion

### Erosion (page 709)

1. The process that wears down and carries away rock and soil is called \_\_\_\_\_.
2. Circle the letters of the sentences that are true about erosion.
  - a. It acts through hoodoos.
  - b. It acts through weathering.
  - c. It acts through the force of gravity.
  - d. It acts through the movement of glaciers, wind, or waves.
3. Is the following sentence true or false? The end product of erosion is sediment. \_\_\_\_\_

### Weathering (pages 710–711)

4. The process by which rocks are chemically changed or physically broken into fragments is called \_\_\_\_\_.
5. Circle the letters of the sentences that are true about weathering.
  - a. It can be mechanical.
  - b. It can be chemical.
  - c. It only breaks down soft rocks.
  - d. It can break down rocks into fragments.
6. Circle the letters of the sentences that are true about mechanical weathering.
  - a. It occurs through frost wedging.
  - b. It occurs from acidic rain.
  - c. It occurs through rusting.
  - d. It occurs through abrasion.
7. Is the following sentence true or false? Abrasion happens when rocks scrape against each other. \_\_\_\_\_
8. In the process of chemical weathering, rock is broken down by \_\_\_\_\_.
9. Circle the letters of the sentences that are true about chemical weathering.
  - a. Chemical weathering occurs because rain is slightly acidic.
  - b. Rocks are broken down by chemical reactions.
  - c. Water is the main agent of chemical weathering.
  - d. Chemical weathering involves abrasion and frost wedging.
10. What happens to the minerals found in rocks during the process of chemical weathering? \_\_\_\_\_

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**Exceeds** - Compare and contrast weathering and erosion.

## HW #2 Section 24.1 The Atmosphere (pages 746–751)

### Reading Strategy (page 746)

**Relating Text and Diagrams** complete the table on the layers of the atmosphere.

Layers of the Atmosphere		
Layer	Altitude Range	Temperature Change
Troposphere		
	12–50 km	
		Temperature decreases as altitude increases.
Thermosphere		

### Earth's Protective Layer (page 747)

- Is the following sentence true or false? The layer of gases that surrounds Earth is called the atmosphere. \_\_\_\_\_
- How does the atmosphere make Earth's temperatures suitable for life? \_\_\_\_\_
- Name two gases in the atmosphere that are essential for life.
  - \_\_\_\_\_
  - \_\_\_\_\_

### Composition of the Atmosphere (page 747)

- Is the following sentence true or false? The composition of the atmosphere changes every few kilometers as you move away from Earth. \_\_\_\_\_
- Earth's atmosphere is a mixture of \_\_\_\_\_
- What two gases together make up about 99% of Earth's atmosphere? a. \_\_\_\_\_ b. \_\_\_\_\_
- Is the following sentence true or false? Both water droplets and solid particles are suspended in the atmosphere. \_\_\_\_\_

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*Match the layer of the atmosphere with a characteristic that would best describe it.*

Layer of the Atmosphere	Characteristic
_____ 8. troposphere	a. Contains the ozone layer
_____ 9. stratosphere	b. The outermost layer of the atmosphere
_____ 10. mesosphere	c. The layer where most meteoroids burn up
_____ 11. thermosphere	d. The layer where most weather occurs

**Exceeds** - Explain why temperate zones in the Northern Hemisphere and the Southern Hemisphere have the same seasons but are six months apart.

# HW #3 Weather and Climate

## Fronts (pages 767–768)

- When a continental polar air mass collides with a maritime tropical air mass, a(n) \_\_\_\_\_ forms.
- Circle the letters of the weather conditions often associated with cold fronts.
 

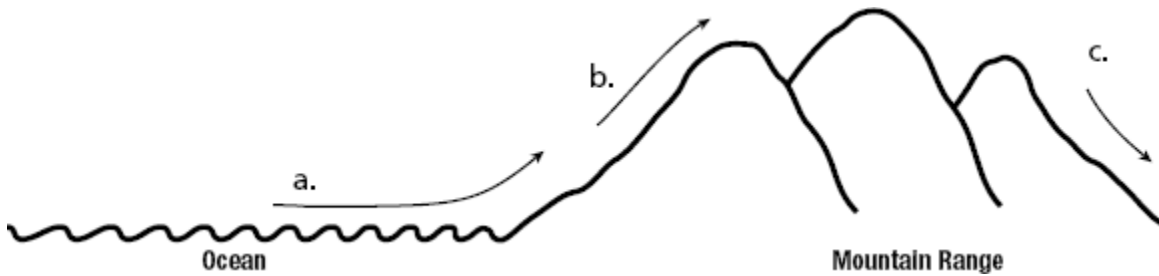
a. large amounts of precipitation	b. clear skies
c. severe thunderstorms	d. strong winds

Match each front to the way it forms.

Front	How It Forms
_____ 3. cold front	a. Occurs when a warm air mass is caught between two cooler air masses
_____ 4. warm front	b. Occurs when a warm air mass overtakes a cold air mass
_____ 5. stationary front	c. Occurs when a cold air mass overtakes a warm air mass
_____ 6. occluded front	d. Occurs when two unlike air masses have formed a boundary and neither is moving

## Factors Affecting Precipitation (page 780)

Use the diagram below to answer the questions that follow.



- What type of air blows in from the ocean as in position a?  
\_\_\_\_\_
- What happens as air from the ocean gets pushed up the mountain as in position b?  
\_\_\_\_\_
- What type of air reaches the other side of the mountain range as in position c?  
\_\_\_\_\_

**Exceeds** - What are trade winds and what causes them? How are trade winds in the Northern Hemisphere different from those in the Southern Hemisphere?

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# HW #4 Section 24.3 Solar Energy and Winds

**Comparing and Contrasting** After you read, complete the table to compare and contrast sea and land breezes.

Sea and Land Breezes		
	Day or Night?	Direction of Air Movement
Sea breeze		
Land breeze		

## Energy in the Atmosphere (page 755)

1. What happens to the solar energy that reaches Earth's atmosphere?  
a. \_\_\_\_\_ b. \_\_\_\_\_  
c. \_\_\_\_\_
2. Is the following sentence true or false? The atmosphere is heated mainly by energy that is reradiated by Earth's surface. \_\_\_\_\_
3. The process where certain gases in the atmosphere radiate absorbed energy back to Earth's surface, warming the lower atmosphere, is called the \_\_\_\_\_.

## The Seasons (pages 753–754)

4. In which type of region is most of the United States located?  
\_\_\_\_\_
5. Is the following sentence true or false? Earth's axis of rotation is tilted at an angle of about 25.3°. \_\_\_\_\_
6. The north end of Earth's axis points to \_\_\_\_\_.
7. The \_\_\_\_\_ are caused by the tilt of Earth's axis as it moves around the sun.
8. Is the following sentence true or false? Earth is closer to the sun when it is summer than when it is winter in the Northern Hemisphere. \_\_\_\_\_
9. Circle the letter that identifies the season that begins with the vernal equinox.  
a. summer                      b. spring  
c. autumn                        d. winter

**Exceeds** - What are three factors that affect a region's pattern of precipitation?

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