**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.

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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?

**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)**

**1.** Is the following sentence true or false? The layer of gases that  
surrounds Earth is called the atmosphere.

**2.** How does the atmosphere make Earth’s temperatures suitable  
for life?

**3.** Name two gases in the atmosphere that are essential for life.

|  |  |
| --- | --- |
| a. | b. |

**Composition of the Atmosphere (page 747)**

**4.** Is the following sentence true or false? The composition of the  
atmosphere changes every few kilometers as you move away  
from Earth.

**5.** Earth’s atmosphere is a mixture of

**6.** What two gases together make up about 99% of Earth’s  
atmosphere? a. b.

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**7.** Is the following sentence true or false? Both water droplets and  
solid particles are suspended in the atmosphere.

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

|  |  |
| --- | --- |
| **Layer of the Atmosphere** | **Characteristic** |
| **8**. troposphere  **9**. stratosphere  **10**. mesosphere  **11**. thermosphere | a. Contains the ozone layer  b. The outermost layer of the atmosphere  c. The layer where most meteoroids burn up  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)**

**1.** When a continental polar air mass collides with a maritime tropical  
air mass, a(n) forms.

**2.** Circle the letters of the weather conditions often associated with  
cold fronts.

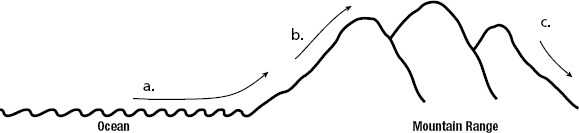
|  |  |
| --- | --- |
| a. large amounts of precipitation | b. clear skies |
| c. severe thunderstorms | d. strong winds |

*Match each front to the way it forms.*

|  |  |
| --- | --- |
| **Front** | **How It Forms** |
| **3**. cold front  **4**. warm front  **5**. stationary front  **6**. occluded front | a. Occurs when a warm air mass is  caught between two cooler air masses  b. Occurs when a warm air mass overtakes a cold air mass  c. Occurs when a cold air mass  overtakes a warm air mass  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.*



**7.** What type of air blows in from the ocean as in position a?

**8.** What happens as air from the ocean gets pushed up the mountain as in position b?

**9.** What type of air reaches the other side of the mountain range as in position c?

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

**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.

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**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?