

Name _____

Earth Science Stations Review Packet

DAY ONE: Earth's Structure and Creation (Atmosphere, Motion & Tectonics)

Station 1 - Layers and Relationships with Weather

Follow the directions at the station!

Step ONE:

Step TWO:

Station 2 - Earth's Motion

Step Two:

Station 3 - Theories of Earth's Formation

Step TWO:

Station 4 - Unit 2 Card Sort & Explanation

Step TWO:

Station 5 - Multiple Choice Questions

Questions:	Explain WHY your answer is the best fit for that question
<p>The Mariana Trench is the deepest ocean trench on Earth. This trench occurs at a plate boundary where _____.</p> <ul style="list-style-type: none">a. One plate is sliding past another.b. One plate is being forced beneath another.c. Two plates are colliding into each other.d. Two plates are pulling apart from each other.	
<p>A student reads the following statement. <i>The presence of greenhouse gases in Earth's atmosphere is important to Earth's ability to support human life.</i> How would Earth be different without greenhouse gases in its atmosphere?</p> <ul style="list-style-type: none">A. More heat from solar radiation would escape into space.B. More solar radiation would be reflected back into space.C. More solar radiation would penetrate Earth's crust and mantle.D. More heat from solar radiation would be stored in Earth's core.	
<p>When and where would the number of daylight hours each day be the greatest?</p> <ul style="list-style-type: none">a. During the winter near the equatora. During the winter near the North Poleb. During the summer near the equatorc. During the summer near the North Pole	
<p>The Big Bang Theory is a hypothesis that states that all matter and energy were at one time compress into a small volume and then</p> <ul style="list-style-type: none">a. Implodedb. Expanded outwardc. Stayed compressedd. None of the above	
<p>What movement of Earth is responsible for the number of days in a year?</p> <ul style="list-style-type: none">a. Rotationb. Revolutionc. Nutationd. Precession	

<p>What most likely happens when a cold air mass comes into contact with a warm, moist air mass?</p> <p>A. The sky becomes clear. C. Cold air is pushed to high altitudes.</p> <p>B. Rain or snow begins to fall. D. Warm air is pushed to the ground</p>	
<p>How does the tilt of the Earth's axis affect the seasons?</p> <p>A by changing the amount of direct solar energy reaching the surface of Earth</p> <p>B by influencing the rate of chemical reactions occurring in the atmosphere</p> <p>C by deflecting the harmful rays of radiation emitted by the sun</p> <p>D by changing the speed of the rotation of Earth</p>	
<p>When cold air in the winter passes over large bodies of warm water, moisture is picked up. As the air rises rapidly over land,</p> <p>A. lightning generally occurs. C. precipitation generally occurs.</p> <p>B. cold fronts become warm fronts. D. hurricanes are formed.</p>	
<p>Which would produce the least severe earthquake damage along the surface of Earth?</p> <p>A. An earthquake with a deep focus and a magnitude of 2.5</p> <p>B. An earthquake with a shallow focus and a magnitude of 2.5</p> <p>C. An earthquake with a deep focus and a magnitude of 4.5</p> <p>D. An earthquake with a shallow focus and a magnitude of 4.5</p>	
<p>The layers of the Earth's atmosphere...</p> <p>a. are all the same temperature</p> <p>b. decrease in temperature with increasing altitude</p> <p>c. increase in temperature with increasing altitude</p> <p>d. Increase, decrease or stay the same temperature depending on altitude</p>	

What is most responsible for the presence of groundwater in an area?

- A the movement of water from a confined aquifer into surface water
- B the movement of surface water and precipitation through soil and rock
- C the movement of water from streams and rivers to watersheds
- D the movement of surface water through impermeable rock

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Day Two

Station 1 - Plate Tectonics

Step Two:

Station 2 - Unit 4 Card Sort & Explanations

Step Two:

Station 3 - Earthquakes

Step Two:

1. Differentiate between an epicenter and focus.
2. Differentiate between P and S waves in terms of damage, occurrence of time and location.
3. Discuss what occurs when you have higher magnitude and a shallow focus and explain why this impact occurs.

Station 4 - Earthquakes and Volcanoes

Step Two:

1. Observe the pattern of earthquakes and volcanoes over the surface of the Earth. Are they scattered at random or are they concentrated in certain areas? Describe your observations.
2. Explain your observations – why do the earthquakes and volcanoes occur in these areas?
3. Is there a relationship between the direction of movement and pattern of earthquakes? volcanoes? Describe and explain.

Step Three:

Station 5- Multiple Choice

Questions:	Explain WHY your answer is the best fit for that question
Which contributes to the formation of hurricanes during the late summer? A the interaction between ocean water salinity and warm air masses B the interaction between ocean water currents and polar air masses C the interaction between ocean water temperatures and warm air masses D the interaction between ocean water salinity and ocean water density	
Why are ocean currents important to coastal regions? A They produce high and low tides along coastal regions.	

<p>B They can warm or cool the air temperatures along coastal regions. C They move vertically pushing warm water and nutrients to the surface along coastal regions. D They increase the rate of precipitation as cold water moves along coastal regions.</p>	
<p>How does heat from the sun get to Earth? A by radiation, using electromagnetic waves to transfer the heat B by convection, using liquids and gases to transfer the heat C by conduction, using solids to transfer the heat D by absorption, using primary waves to transfer the heat</p>	
<p>Large quantities of sand can be added to the beach to stabilize the shoreline. Which describes a disadvantage of this process? A It causes inland erosion. B It is a short-term solution. C It creates a barrier that prevents the tides from occurring along the coastline. D It creates a wall that disrupts the vegetation along the coastline.</p>	
<p>Which statement describes the general movement of air masses? A They move from areas of high pressure to areas of low pressure. B They move from areas of high altitude to areas of low altitude. C They move from areas of low humidity to areas of high humidity. D They move from areas of low temperature to areas of high temperature.</p>	
<p>How is climate different from weather? A Climate is constantly changing, whereas weather changes slowly over time. B Climate influences people's daily activities, whereas weather influences people's seasonal activities. C Climate refers to the atmospheric conditions on a given date, whereas weather refers to the atmospheric conditions during a given season. D Climate is based on observations made for a region over several years, whereas weather is based on day-to-day observations made for a region.</p>	
<p>Which most likely occurs when a fast-moving cold air mass moves into a region of warmer, moist air? A It causes light precipitation for a long period of time. B It causes light precipitation for a short period of time. C It causes heavy precipitation for a long period of time. D It causes heavy precipitation for a short period of time.</p>	

Which results from the unequal heating of the ocean water of Earth?

A a constant sea level

B changes in tidal patterns

C unchanging climate for all regions on Earth

D changes in ocean current patterns

Scientists are studying a graph showing the time differences between the seismic P-waves and the seismic S-waves as they travel through Earth. Which information can they learn from the graph?

A the magnitude of an earthquake

B the duration of an earthquake

C the epicenter of an earthquake

D the intensity of an earthquake