Study Island

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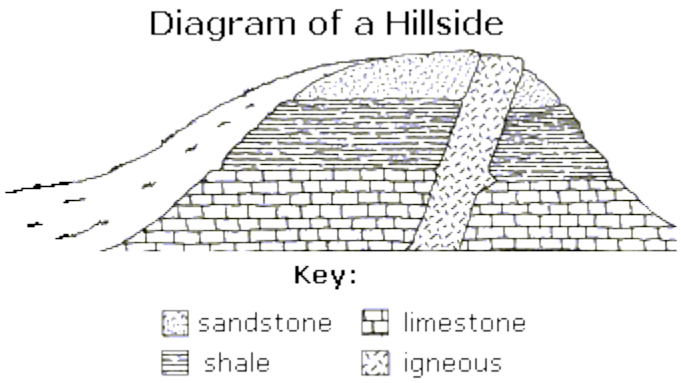
Earth's History

1.



The diagram above shows a cross section of a hillside. Four rock units are shown in the cross section. Which of these units is the **youngest**?

- **A.** igneous unit
- **B.** shale unit
- **C.** limestone unit
- **D.** sandstone unit

Plate Tectonics

2. In the Earth's mantle, heat is transferred in large convection currents. Within these currents,

- **A.** hotter and cooler rock sink but do not rise.
- **B.** cooler rock rises and hotter rock sinks.
- **C.** hotter rock rises and cooler rock sinks.
- **D.** cooler and hotter rock rise but do not sink.

Earth's Surface Features & Processes

3. Technology Enhanced Questions are not available in Word format.

Earth's Surface Features & Processes

4. The Earth's uppermost layer is made up of tectonic plates. The primary tectonic plates are shown on the map below.

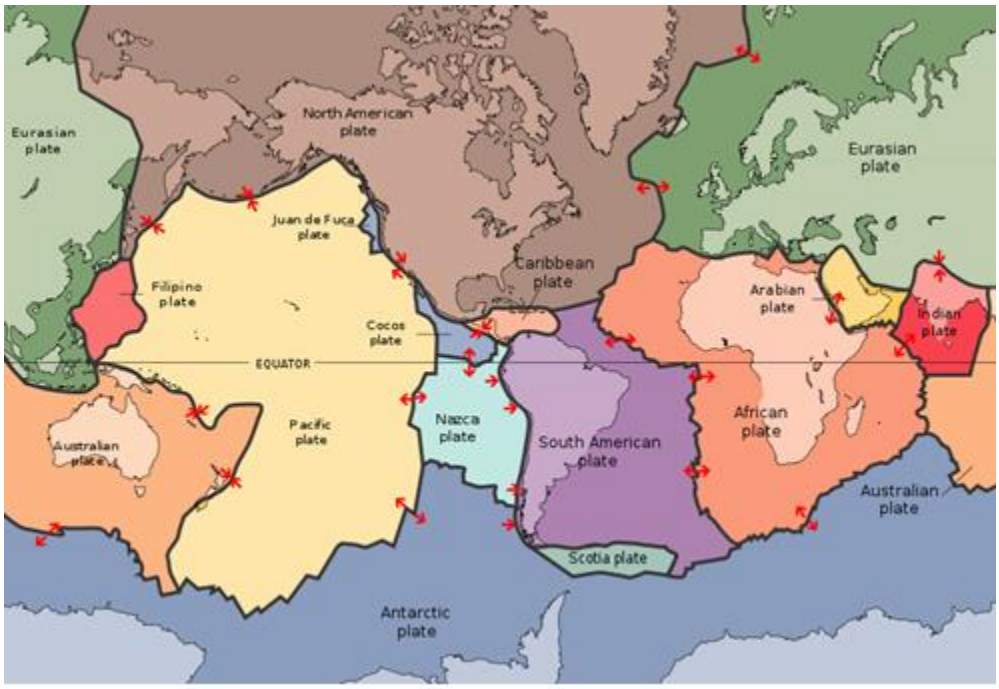


Image courtesy of the USGS

At the boundaries of tectonic plates, rock materials

- **A.** are brought to the surface through the process of erosion.
- **B.** are brought to the surface from the interior and to the interior from the surface.
- **C.** cannot be found due to the process of melting.
- **D.** are only brought to the interior from the surface.

Plate Tectonics

5. Before the present theory of plate tectonics, scientists used the hypothesis of continental drift to propose that Earth's continents are in motion. Which of the following were initially used to support the hypothesis of continental drift?

I. the matching shapes of continent edges
II. similar fossils on different continents
III. matching rock types on different continents
IV. evidence in the rock record for climate change

- **A.** II, III, and IV only
- **B.** I, II, III, and IV
- **C.** I and IV only
- **D.** II and III only

Earth's History

6. The Earth, the Sun, and the rest of the solar system are almost unimaginably old when viewed on a human time scale. While modern humans first evolved approximately 200,000 years ago, the age of the Earth, the Sun, and the rest of the solar system is approximately _____ years.

- **A.** 4.6 million
- **B.** 200,000
- **C.** 4.6 billion
- **D.** 100,000

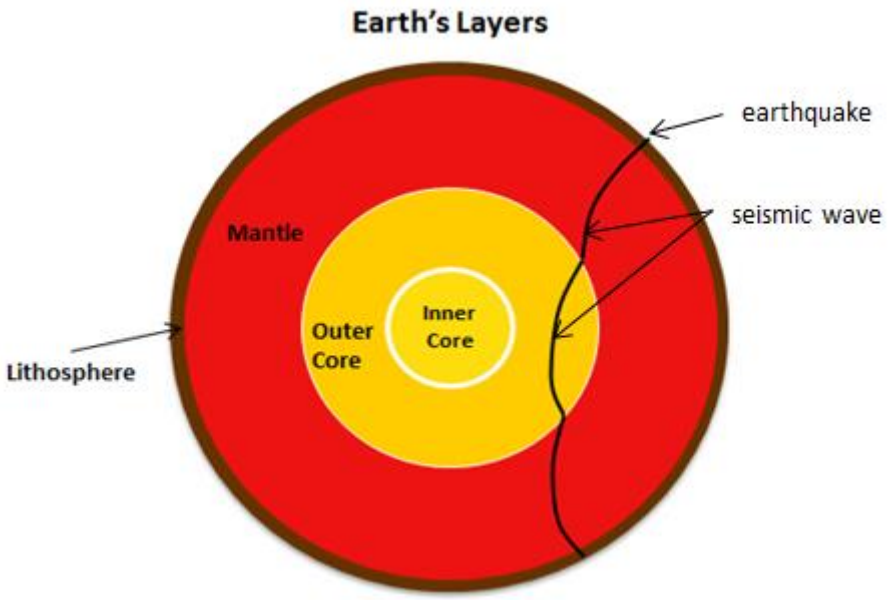
Earth's History

7. According to the law of superposition, younger layers of rock are generally found above older layers of rock. However, there are locations where older layers are found above younger layers. Which of the following can cause this to happen?

- **A.** Older rock layers can slide above younger rock layers along faults.
- **B.** During uplift, rock layers can tilt enough to overturn.
- **C.** Rock layers can overturn as they are folded.
- **D.** all of these

Earth's Structure

8. An earthquake generates a seismic wave that travels through several layers of the Earth's interior, shown below.



The lithosphere is made out of solid rock, the mantle is a combination of solids and liquids, and the outer core is a liquid.

The path of the seismic wave changes at the boundaries of each layer because

- **A.** each layer is made out of the same material.
- **B.** seismic waves always change direction after a few miles.
- **C.** each layer has different properties.
- **D.** the layers are different sizes.

Plate Tectonics

9. How might two tectonic plates interact with each other?

I. They can collide with each other.

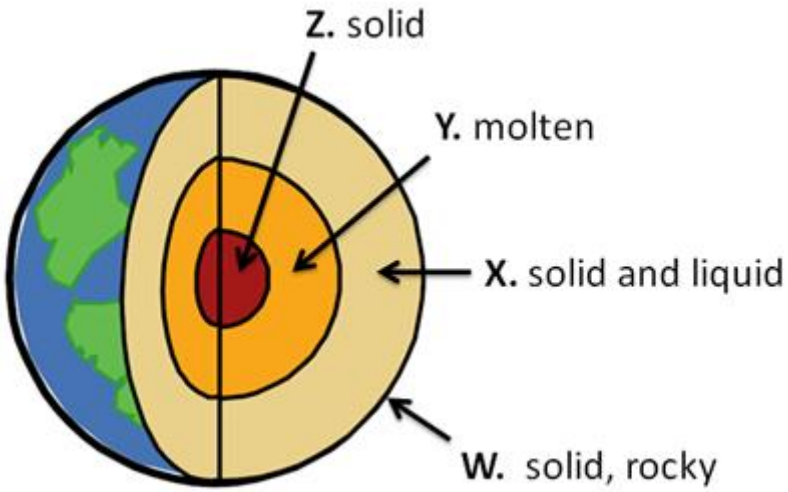
II. One plate may slide under another plate.

III. They can slide past each other.

- **A.** III only
- **B.** I and III only
- **C.** I, II, and III
- **D.** II and III only

Earth's Structure

10.



Which one of the of Earth's layers is the thinnest?

- **A.** outer core
- **B.** crust
- **C.** mantle
- **D.** inner core
