Multiple Choice

What did Wegener think happens during the continental drift?

A. continents move
B. continents freeze
C. the mantle warms
D. convection stops

ANS: A PTS: 1 DIF: easy REF: 363 STA: 7.2.4 BLM: knowledge

What is one piece of evidence that caused Wegener to think that continents moved?

A. He found an old map of the world that showed movement.
B. He found similar fossils on different continents that are separated by oceans.
C. He proved his hypothesis by going back in time like Marty.
D. He observed the continents moving with his own eye using an elapsed time camera.

ANS: B PTS: 1 DIF: easy REF: 363 STA: 7.2.4 BLM: knowledge

In which areas does subduction of the ocean floor take place?

A. rift valleys
B. the lower mantle
C. mid-ocean ridges
D. deep-ocean trenches

ANS: D PTS: 1 DIF: easy REF: 363 STA: 7.2.4 BLM: knowledge

How many large plates form the outer shell of the earth?

A. 5
B. 7
C. 2
D. none

ANS: B PTS: 1 DIF: easy REF: 357 STA: 7.2.4 BLM: knowledge

According to plate-tectonic theory where is new oceanic crust being formed?

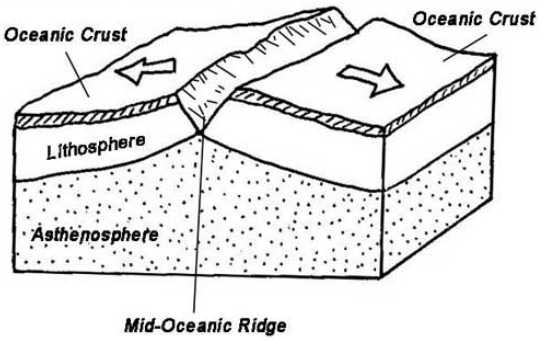
A. rift valleys
B. the lower mantle
C. mid-ocean ridges
D. deep-ocean trenches

ANS: C PTS: 1 DIF: easy REF: 363 STA: 7.2.4 BLM: knowledge

At which boundary do two plates pull apart?

A. convergent
B. transformers
C. divergent
D. mantle-crust

ANS: C PTS: 1 DIF: easy REF: 364 STA: 7.2.4 BLM: knowledge



What statement best describes the process in the diagram above?

A. converging plates form mountains
B. converging plates form volcanoes
C. diverging plates form mountains
D. diverging plates form a rift valley

ANS: C PTS: 1 DIF: medium REF: 365 STA: 7.2.4 TOP: BLM: analysis

Which force squeezes Earth's crust to make the crust shorter and thicker?

A. tension
B. The Force
C. friction
D. compression

ANS: D PTS: 1 DIF: easy REF: 413 STA: 7.2.4 BLM: knowledge

In which type of location is an earthquake risk the greatest?

A. at plate centers
B. on big plates
C. at plate boundaries
D. At Lady Gaga's half-time show

ANS: C PTS: 1 DIF: easy REF: 413 STA: 7.2.4 BLM: knowledge

What do we call a volcano that has not erupted in a long time, but that scientists believe may erupt sometime in the future?

A. dormant
B. active
C. extinct
D. undead

ANS: A PTS: 1 DIF: easy REF: 413 STA: 7.2.4 BLM: knowledge

Which of the following can cause damage days or months after a large earthquake?

A. The arrival of surface waves
B. He-Who-Shall-Not-Be-Named
C. A tsunami
D. An aftershock

ANS: D PTS: 1 DIF: easy REF: 413 STA: 7.2.4 BLM: knowledge

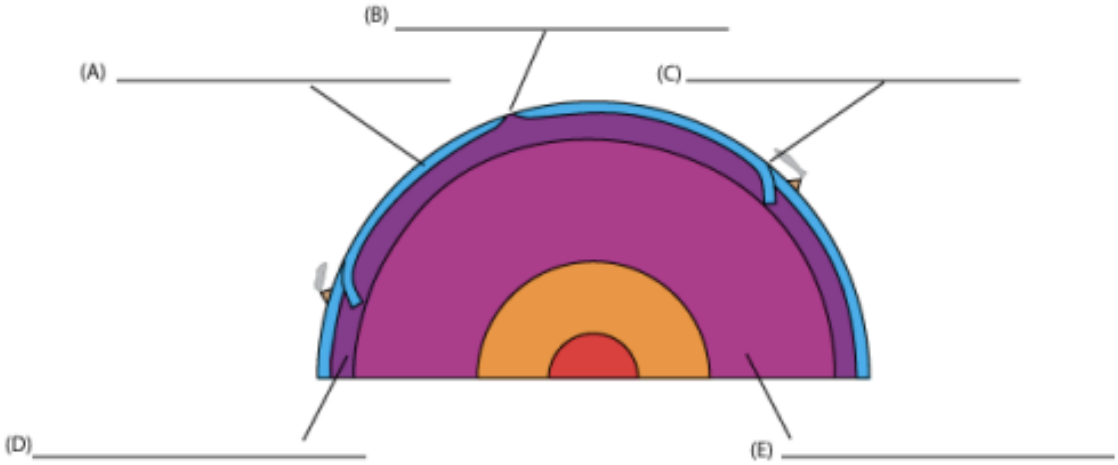
Earthquakes…

A. Are caused by rupture of land
B. Are generated in the focus
C. Release energy in the form of seismic waves
D. Occur whenever tectonic plates move
E. All of the above

ANS: E PTS: 1 DIF: easy REF: 380 STA: 7.2.4 BLM: knowledge

Fill-in-the-Blank

Please fill in the missing labels.



ANS:

(A) Lithosphere
(B) Mid-ocean ridge or divergent margin
(C) Trench or convergent margin
(D) Asthenosphere
(E) Mantle

PTS: 5 DIF: medium STA: 7.2.4 BLM: knowledge

The continents were thought to have once been joined together in a supercontinent that was called _____.

ANS: Pangaea PTS: 1 DIF: easy REF: 363 STA: 7.2.4 BLM: knowledge

A mid-ocean ridge is a _____.

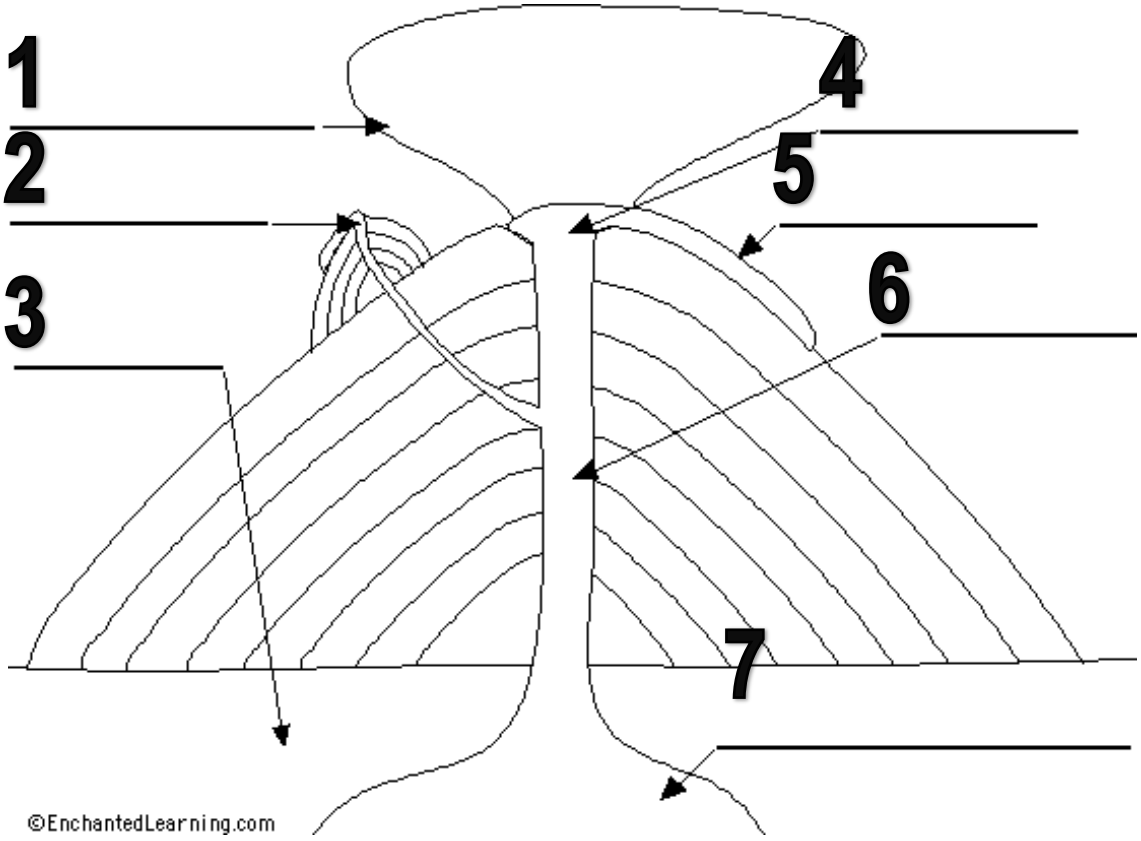
ANS: A long chain of mountains PTS: 1 DIF: medium REF: 363 STA: 7.2.4 BLM: knowledge

Rocks on either side of a _____ fault slip past each other with little up and down motion.

ANS: strike-slip PTS: 1 DIF: easy REF: 413 STA: 7.2.4 BLM: knowledge

Label the parts of the volcano in this diagram.

Word bank: ash cloud, conduit, crust, lava, magma chamber, side vent, vent



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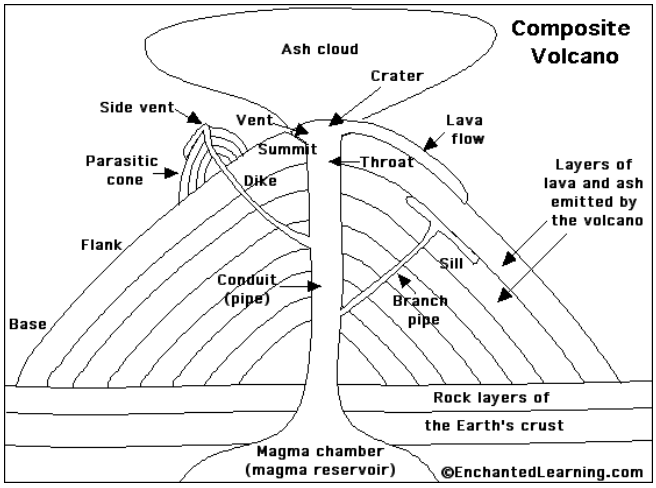
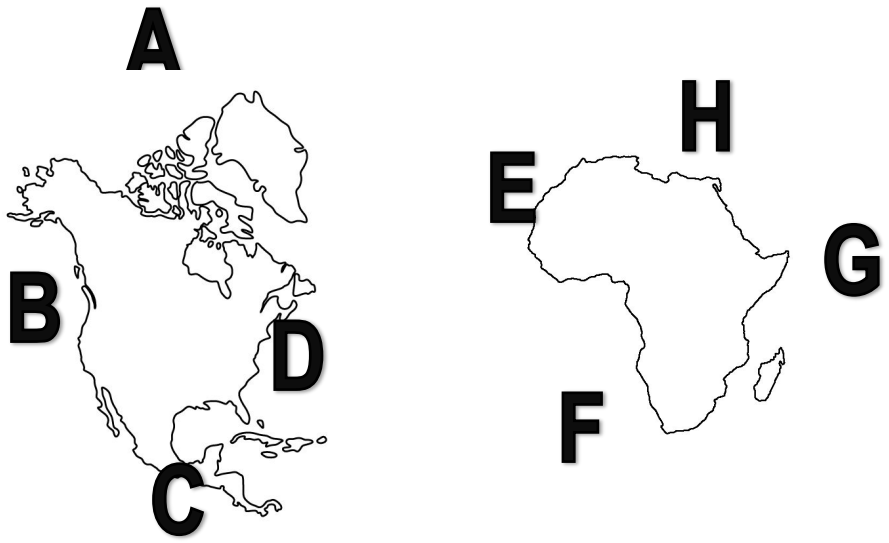


PTS: 7 DIF: medium REF: 399 STA: 7.2.4 BLM: knowledge

Matching

The image shows North America and Africa. Circle the parts of the coastlines of the two continents that were joined in Pangea.



PTS: 2 DIF: medium REF: 363 STA: 7.2.4 BLM: comprehension

Place the following steps of sea-flooring spreading in their correct sequence.

A. The molten material cools and hardness, forming a strip of rock along the ocean floor
B. The strip of rock moves away from the ridge.
C. Molten material from inside Earth rises to the ocean floor at a mid-ocean ridge.

ANS: C, A, B PTS: 3 DIF: medium REF: 363 STA: 7.2.4 BLM: comprehension

Short Answer

List at least **TWO** of the major lithospheric plates of our planet.
ANS: North American, South American, African, Eurasian, Indian-Australian, Antarctic, Pacific
PTS: 2 DIF: medium REF: 363 STA: 7.2.4 BLM: knowledge

Describe Wegener's hypothesis about the continents.
ANS: Wegener's hypothesis was that all the continents were once joined together in a single landmass and have since drifted apart.
PTS: 2 DIF: medium REF: 363 STA: 7.2.4 BLM: comprehension

How do moving plates change Earth's crust?
ANS: Moving plates add new crust at mid-ocean ridges. They also cause oceanic crust to be destroyed at deep-sea trenches. They also squeeze continental crust into mountains and pull the crust apart at rift valleys.
PTS: 3 DIF: hard STA: 7.2.4 BLM: comprehension

List **TWO** types of landforms that could result from convergent plate movement.
ANS: Mountains and volcanoes PTS: 2 DIF: easy REF: 363 STA: 7.2.4 BLM: knowledge

Apply what you know about volcanoes to answer the following question: How might a volcano be hazardous for plants and animals that live nearby?
ANS: Plants and animals could be killed by ash, lava flows, and pyroclastic flows.

PTS: 3 DIF: easy REF: 413 STA: 7.2.4 BLM: application

Essay

There is a high risk of earthquakes along the San Andreas fault in California. What is happening in earth's crust along the fault to cause this high earthquake risk? Use the theory of plate tectonics in your answer.

ANS:

Scoring Rubric	Score 4	Score 3	Score 2	Score 1
How stress and faults cause earthquakes	Explains correctly & in detail how stress and faults cause earthquakes	Correctly explains how stress & faults cause earthquakes	Incorrectly explains how stress & faults cause earthquakes	Does not explain how stress & faults cause earthquakes
How plate movement causes faults	Explains correctly & in detail how plate movement causes faults	Correctly explains how plate movement causes faults	Incorrectly explains how plate movement causes faults	Does not explain how plate movement causes faults

PTS: 8 DIF: hard REF: 413 STA: 7.2.4 BLM: application

Compare & contrast volcanoes and earthquakes.

ANS:

Scoring Rubric	Score 4	Score 3	Score 2	Score 1
Compares volcanoes & earthquakes	Student thoroughly & correctly compares volcanoes & earthquakes	Student only partially compares volcanoes & earthquakes	Student incorrectly compares volcanoes & earthquakes	Student does not compare volcanoes & earthquakes
Contrasts volcanoes & earthquakes	Student thoroughly & correctly contrasts volcanoes & earthquakes	Student only partially contrasts volcanoes & earthquakes	Student incorrectly contrasts volcanoes & earthquakes	Student does not contrast volcanoes & earthquakes

PTS: 8 DIF: hard REF: 413 STA: 7.2.4 BLM: analysis