

Plate Tectonic Retake Instructions

Study the following and make sure you can answer these questions on a test.

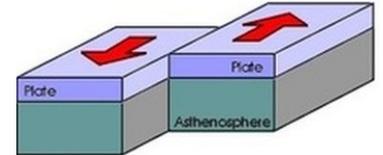
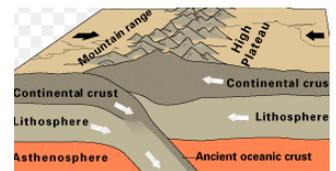
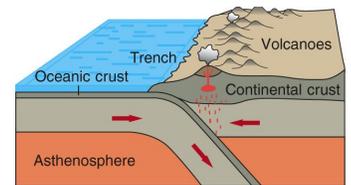
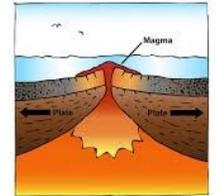
Q: Why are earthquakes and volcanoes found mostly around the boundaries of the plates?

A: The earth's crust is made up of several plates that can move around by floating on the mantle. There are 3 ways plates move around.

- **Divergent Boundaries:** Plates moving AWAY from each other. This causes magma to seep up through the crack. This is where sea floor spreading occurs and where some volcanoes can be found. (Think about the model you made when new land came up then slide under the continents.)
- **Convergent Boundaries:** When plates collide into each other. When ocean plates hit other ocean or land plates, the more dense ocean plates slide under. There is a lot of heat and pressure and the plates move down. This will often cause a volcano.

Sometimes, when land plates hit land plates, they smash into each other creating a mountain. Earthquakes are often found near these types of plates.

- **Transform boundaries:** When plates scrape sideways against each other. This can cause earthquakes.



Q: How do the shapes of the continents suggest that they were one time part of a single continent called Pangea?

A: They look like puzzle pieces that fit together.

Q: How do similar rocks and similar fossils found on different continents suggest that land has moved over time?

A: Rock, plants, and land animals that would have been unable to swim across an ocean are found on different continents that are oceans apart. This tells us that the land must have been touching at one point.

Q: How long did it take for the continents and plates to move from Pangea to now?

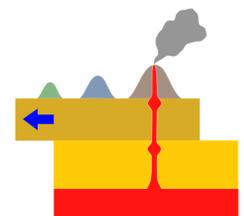
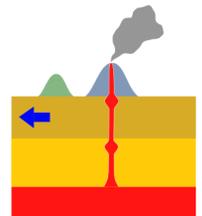
A: MILLIONS of YEARS

Q: Are the plates still moving?

A: Yes! They move anywhere from 2 cm to 13 cm a year! So in millions of years from now, our continents will look very different than they do now.

Q: How can volcanoes form?

A: Volcanoes form one of 3 ways: On convergent boundaries, on divergent boundaries (see above) and over hotspots. When a plate moves over a hotspot new volcanoes are created. These volcanoes move with the plate away from the hotspot leaving room for new volcanoes to form.



ON THE BACK: Write a paragraph listing at least 3 evidences that the crust has changed over time.