How Is The Earth Changing?

Review Game

Rules:

- Participants buzz in after the majority of the question is read to answer
 - Each correct response results in 1 point

Rules Continued:

- Incorrect answer: Same question goes to any other person remaining that did not buzz in before awarded 1 point
 - Next question will go to another set of lab table representatives
- Outside talking amongst lab tables during a round results in deduction of point

Rules Continued:

• First response - only response (cannot change answer)

• What has moved land and continents over millions of years, and continues to do so?

• What type of plate material is more dense?

• What happens to sinking rock at convergent boundaries?

• What is being made at divergent boundaries?

• What is the process that moves tectonic plates? Be specific to the type of material found in this process.

• What layer of the Earth do tectonic plates exist?

• What 2 continents share the most common similarities?

• What is the evidence to tell if a plate boundary is a transform boundary?

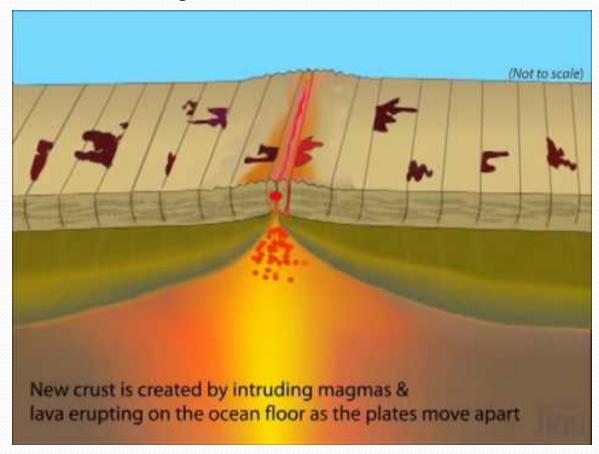
- What is a collection of magma that rises as a plume through the mantle called?
- Extra point does this type of structure ever move?

• What 2 pieces of data can you determine to map out where plate boundaries are located?

• What are the marks in rocks called when glaciers cut into rock as they recede?

- Which of the following is/are evidence(s) that Wegner used to theorize that the continents were once joined?
- A. The ice in the arctic froze existing organisms in the area
- B. Similar plant and animal fossils were located on separate continents
- C. Receding glaciers left marks in rocks found in temperate areas
- D. Different rock sequences were found on different continents

• What type of plate boundary is this?



- Which of the following processes is the reason that the Atlantic Ocean will expand one day?
- A. Subduction
- B. Rock crumpling
- C. Sea floor spreading
- D. Uplift

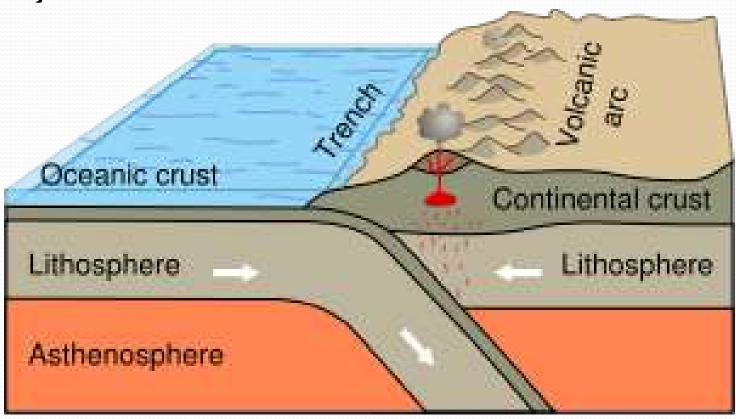
• What area of the planet contains the highest amount of active volcanoes?

• When a plate sinks under another, what is the area in which the plate begins to sink called?

- Fossils found in Antarctica have indicated that
- A. These organisms evolved to survive such hard conditions
- B. These organisms were able to migrate to such an area over a long period of time
- C. These organisms could not have been able to survive there unless the climate was different

• What type of plate boundary is this?

-extra point - be specific



- Which of the following geological structures is evidence of a convergent boundary?
- A. Mountain ranges
- B. Volcanoes
- C. Sea floor spreading
- D. Earthquakes

• At a divergent boundary, what is the age of rock at the plate boundary vs. the coastline?

• What type of rock would you typically find at plate boundaries?

• If 2 continental plates collided, which one would sink and why?

• What mountain range was formed when the landmass of Italy crashed into the continent of Europe?

• What mountain range was formed when the subcontinent of India crashed into the Eurasian continent?

• What is the fault line responsible for the earthquakes in the state of California?

• What plate does the island of Hawaii lie on?

• What type of plate boundary is found at the Ring of Fire?

• What type of plate boundary is found at the Mid-Atlantic Ridge?

• What 2 factors do you need to have a volcano erupt? Extra point – what is the source that 'fuels' a volcano to erupt

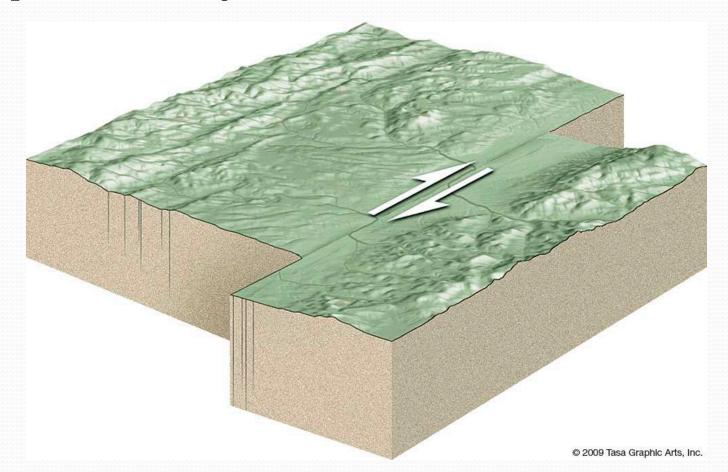
• What type of plate boundary is associated with volcanic activity?

• What is the most basic piece of evidence from Wegner's theory that the continents were joined together at one time?

• What is formed as a result of a convergent boundary if there is no source of magma or hotspot present?

• How can you prove what direction certain plates are moving?

• What type of plate boundary is this?



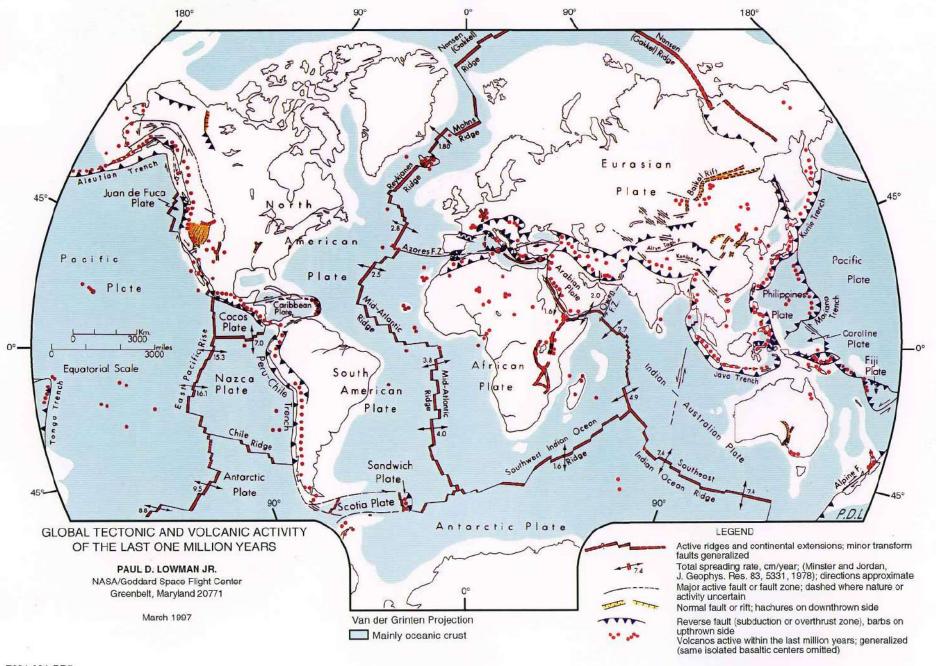
• What happens to magma as it cools in convection?

• What happens to hot magma in convection?

• What is the upper layer of the mantle called?

• According to the diagram on the next slide, what 2 plates in how they move will cause the Red Sea to expand?

Map



• Other than volcanoes or mountains, what physical feature is also associated with convergent boundaries?

• What part of the United States mainland contains a hotspot that may erupt as a super volcano?

Bonus Question

• What part of Oahu in the Hawaiian island chain has the oldest, inactive volcanoes?

Items To Study For Test

- DQB scientific principles and definitions
- Note sheets / diagrams
- IQWST Activities
- Application of Principles
- Be prepared to make scientific claims of how storms are formed / are they similar or different around the world