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Subject: Intro-Earthquake

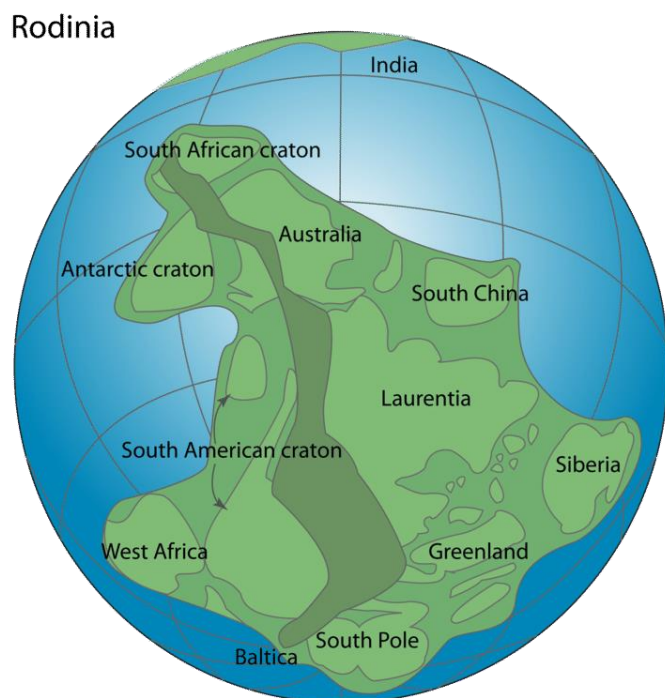
Assignment: 4

Topic: Plate Tectonics Theory

Submitted to: Engineer – Khurshid Alam

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[Figure1]

What would Wegener think?

Like any great theory, plate tectonics makes a tremendous amount of sense. The whole story fits together so perfectly. Wegener had so much evidence that the continents had once been joined. Seafloor spreading is a perfect mechanism for moving those continents. It's really too bad that Alfred Wegener is not here to learn about the theory of plate tectonics. It seems certain that he would be ecstatic!

Plate Tectonics Theory

The theory of plate tectonics is what brings together continental drift and seafloor spreading. Plates are made of lithosphere topped with oceanic and/or continental crust. The plates are moved around on Earth's surface by seafloor spreading. Convection in the mantle drives seafloor spreading. Oceanic crust is created at

mid-ocean ridges. The crust moves outward from the ridge over time. The crust may eventually sink into the mantle and be destroyed. If a continent sits on a plate with a mid-ocean ridge, the continent will be pushed along.

Plate Boundaries

Two plates meet at a plate boundary. There are three types of plate boundaries since there are three ways that plates can meet. Plates can move away from each other. They can move toward each other. Finally, they can slide past each other. The three types of plate boundaries are divergent, convergent, and transform. They are described in the following three concepts.

Most geological activity takes place at plate boundaries. This activity includes volcanoes, earthquakes, and mountain building. The activity occurs as plates interact. Giant slabs of lithosphere moving around can create a lot of activity! The features seen at a plate boundary are determined by the direction of plate motion and by the type of crust found at the boundary.

What the Theory Explains

The theory of plate tectonics explains most of the features of Earth's surface. It explains why earthquakes, volcanoes and mountain ranges are where they are. It explains where to find some mineral resources. Plate tectonics is the key that unlocks many of the mysteries of our amazing planet. Plate tectonics theory explains why:

- Earth's geography has changed over time and continues to change today.
- Some places are prone to earthquakes while others are not.
- Certain regions may have deadly, mild, or no volcanic eruptions.
- Mountain ranges are located where they are.
- Many ore deposits are located where they are.
- Living and fossil species of plants and animals are found where they are.
- Some continental margins have a lot of geological activity, and some have none.

Plate tectonic motions affect Earth's rock cycle, climate, and the evolution of life.

Summary

- The theory of plate tectonics brings together continental drift and seafloor spreading.
- At a plate boundary, two plates can be moving apart, together or past each other.
- Plate tectonics theory explains many things in geology, such as where volcanoes, earthquakes, mountain ranges, ore deposits, and other features are located.