

Dear President Bush:

We have researched and researched and finally got the information you wanted. Earthquakes are caused by, plates within the Earth's surface. These plates rub together because they are floating on top of liquid in the center of the Earth. These plates slip around and hit each other and that's how an earthquake begins.

There are three types of plate movement. These include divergent, convergent, and lateral movement. There are four types of plate boundaries, divergent, convergent, transform, and plate boundary zones.

Currently, there are 14 continental oceanic plates. The Eurasian plate, Australian-Indian plate, Philippine plate, Pacific plate, Juan de Fuca plate, Nazca plate, Cocos plate North America plate, Cariddeanh plate, South American plate, African plate, Arabian plate, the Antarctic plate, and then finally, the Scotia plate.

About 200 million years ago, instead of seven smaller continents, there was one big continent called Pangea. These continents only moved about five to seven centimeters each year.

First, fossil evidence proves that there was a land bridge between South America, Africa, Australia, and Antarctica. There are two fossils that support this theory. They are mesosaurus and glossopteris.

These plates drift all over the globe. They move both horizontal and vertically. Divergent boundaries occur along spreading centers where plates are moving apart and new crust is created by magma pushing up from the inside the mantle.

The Earth's unchanging size implies that the Earth's crust is being re-made just as fast it is being destroyed. Convergent boundaries are like a very slow collision between

plates. We are still able to predict volcanoes and earthquakes but we will never know for sure.

Sincerely,

Celia and Martha