Dear President Bush:

After recording data and studying the patterns for more than two weeks, we have learned that the movement of tectonic plates causes earthquakes. There are three different types of movement: divergent, convergent, and lateral slipping. Divergent movement occurs along spreading centers where plates are moving apart and a new crust is formed by magma pushing up from the mantel. Convergent movement is just small collisions. And lateral slipping is the movement of two plates rubbing against each other. This causes friction, which makes the movement jerky.

We also learned that earthquakes have been occurring for a very long time. Many scientists think that at the beginning of time, all the continents were joined into one big piece of land called Pangaea. Eventually, it broke up into different continents. If you look at a map of the world, you can tell that some continents would fit right into each other. Another piece of evidence that we have for believing this is true, is that many fossils of animals and plants have been found on two continents that we think were joined.

There is a pattern that we can follow to determine where earthquakes are going to occur. If we know exactly where there's a fault, then we know that there's a probability of earthquakes in that area. This way, we can be ready for them. For example, California goes through a lot of earthquakes, so schools should have earthquake drills. Buildings should be built stronger and more resistant against earthquakes. And at home, families should have an emergency plan in case of an earthquake. This would really help and save many lives.

My group and I came up with the idea of a way of warning our neighboring countries when an earthquake is about to happen. There are faults that go all the way to

Mexico or Canada. So as soon as the earthquake starts, we can warn them because it takes a couple of seconds for the earthquake to get there.

Sincerely,

Daisy

Martha

Maria