

THE FINAL FRONTIER



Have you ever wondered whether there are earthquakes on other planetary bodies? Well, wonder no more!

As Tim mentions in the movie, seismic activity on our planet is generated by shifting tectonic plates under the surface of the earth. These plates move because of heat escaping from the earth's core. So it stands to reason that any other body with a solid surface and a large, hot core can experience seismic activity.

On the other hand, bodies whose cores are small or cool have “single-

plate” surfaces that most likely *don't* shake. For instance, most researchers believe that Mars once experienced lots of earthquakes—or, more accurately, **Marsquakes!**

However, since the Martian core cooled dramatically, this would have led to decreased seismic activity. Since we don't know a lot about the interior of Mars, it's hard to know exactly how much seismic activity it experiences, but since the core is thought to be at least partially molten, it's likely that small Marsquakes still take place.

Studies have indicated that seismic activity is possibly also happening—or has happened in the past—on planet Mercury and Saturn's moon Titan. And on their trips to our own moon, Apollo astronauts measured seismic activity and found that there are small **moonquakes**, too! These quakes are probably caused by Earth's gravitational pull.