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Astronomy

Planets in a Geology Perspective

While reading chapter 9, I learned a lot about the earth’s fundamentals structure. More specially the earth geology, and how it relates to other planets. In this chapter we review a lot of the planets inner core, the shaping of the planetary surface, and the reason why does all this happens. I also got to acknowledge our special qualities. Earth seems to be put together well enough to create life in our planet.

On Earth everything seems to be solid, yet every once in a while we get some sort of natural disaster that reminds us that there is movement or activity below the ground. Disasters like *earthquakes* and *volcanic eruption* reminds us that the earths ground is pretty much alive. However it would be wrong to just emphasize on planet Earth. Other *terrestrial* planets have similar issues or qualities that are very close to ours.

Earth’s inner core is composed of two major sections the inner core and the outer core. The reason we have this information is because we have been able to study the *seismic wave.* The seismic wave tells us the vibrations that travel through the earth. In addition we have also gathered information about our moon and the activity that happens up there. We have learned that the moon has a larger lithosphere. The *lithosphere* is the outer most layers, which is the coolest and most rigid rock.

How are terrestrial planets shaped, is a fundamental question that we have asked our selves for many years. Earth can be considered geologically active because volcanic eruption occurs as well as earthquakes and erosion. These types of movement are what shape the planet.

Planets interior gets hot therefore that energy is sometimes converted into volcanic eruption, or other activity that causes the ground to shake. The way our planets cool off is one out of 3 ways. One way is by *convection* which hot material rises to the surface and cools off and contracts and falls back. Another way is by conduction. *Conduction* is the physical transfer between a hot surface and a cooler surface. Third method is *Radiation* where planets lose heat to space through radiation; objects emit thermal radiation of their temperature, which over time cools off.

A planets size is perhaps the single most important characteristic in a planets cooling system. The larger the planet the longer it will take for it to cool off. This interior heat plays a major role in the planets magnetic field. Here on Earth the magnetic field is what determines the direction in which we are spinning. The magnetic field helps us create a *magnetosphere*, which diverts the path of high-energy charged particles coming from the sun

**Questions:** what would happen if were to take a lot of water to another planet.?

2. ) It would be very strange for there to be a violent earthquakes in Mercury because it of an abnormal size for core (big in comparison to its size) . The core tends to be the hottest part of the planet.

3.) Hypothetically it could be possible, however it is kind of rare. Earths plate tectonics were created from the mantle convection. The mantle eventually fractured the Earths lithosphere into a dozen pieces and is what we call plate tectonics.

5.) It would take about 300,000,000,000 year. 001km x 10^8 = 3000 km