**Earth's Restlessness**

Earth is constantly an active planet. The energy within it causes volcanic eruptions, earthquakes, mountain-building processes, and movements of tectonic plates. To understand the processes occurring within the Earth, one must know its structure.

The Earth has a multi-layered internal structure. The outer layer is the **Earth's crust**, which consists of lithospheric plates. The thickness of the Earth's crust ranges from 10 km beneath the ocean floor to 80 km beneath the continents. There are two layers within the Earth's crust: basaltic, which forms the floors of oceans and seas, and granitic, which builds continents. Beneath the Earth's crust lies **the mantle**, extending to a depth of 2900 km. The outer layer of the mantle, which is semi-fluid, is called the asthenosphere. The inner layer is solid. Beneath the Earth's mantle lies the **Earth's core**, which consists of a liquid outer core and a solid inner core due to immense pressure.

A tremendous amount of energy generated within the depths of the Earth is emitted outward. Currents formed in the asthenosphere set magma in motion, which is a fluid mass consisting of a mixture of rocks and gases found within the Earth's interior. Upon reaching the Earth's crust, magma lifts it, causing bulges and cracks. Tectonic faults are formed. The Earth's crust ruptures into plates and they move. Magma moves the plates, which can overlap or collide with each other. The areas where lithospheric plates meet are particularly prone to earthquakes, volcanic eruptions, and fissure eruptions of magma. The strength of an earthquake is determined using the Richter scale. It is an open scale because there is no maximum value established for the intensity of tremors. Each degree is ten times greater than the previous one. An earthquake with a magnitude of 8 on the Richter scale signifies a catastrophic earthquake. The most powerful earthquake recorded so far occurred in Chile and measured 9.5 on the Richter scale.