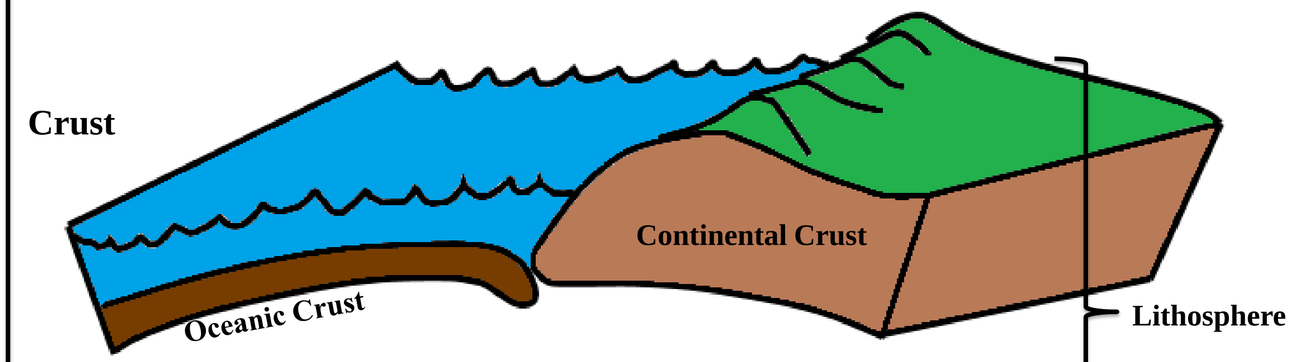
CRUST

Composition
Basalt rock in the oceanic crust and Granit rock in the continental crust

Thickness
Oceanic (5-8 Km)
Continental (40 Km)

State of Matter
Solid

The crust is an outer solid layer where life as we know it exists with mountains, sea, and soil. The oceanic crust is made from basalt rock that is thinner than the continental crust, but it is more dense.



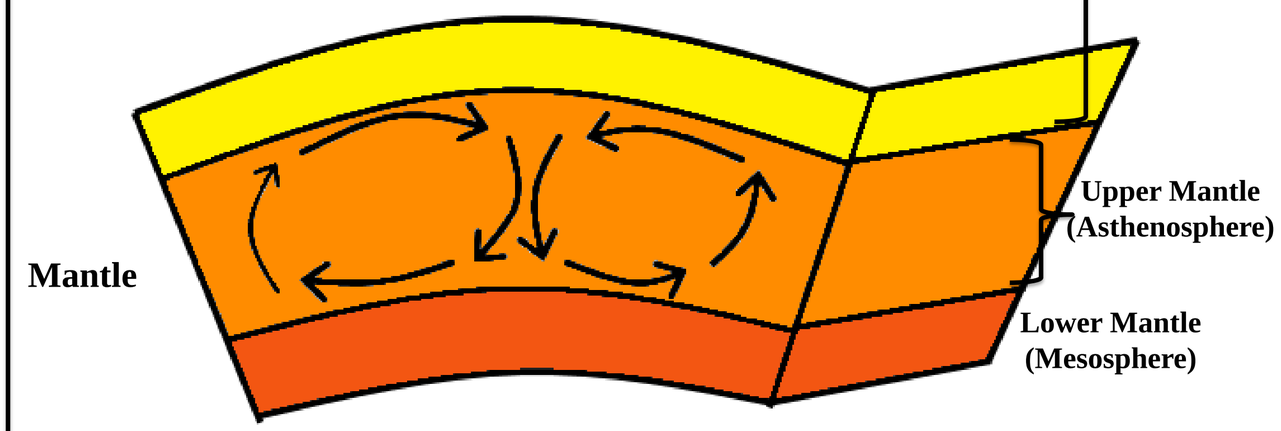
MANTLE

Composition
Iron (Fe) and Magnesium (Mg) and other minerals that make up semi-solid and liquid rocks

Thickness
2,900 Km

State of Matter
Solid, "Plastic-like" solid, & Liquid

The mantle is the Earth's thickest layer. It makes up about 85% of Earth's weight. The top part is a solid and is joined with the crust and called the lithosphere. The lithosphere floats on top of the asthenosphere. The asthenosphere is a plastic-like solid that can flow like a liquid because it is under pressure. When it heats up at the bottom it becomes less dense and rises towards the top where it cools, shrinks, and sinks back down.



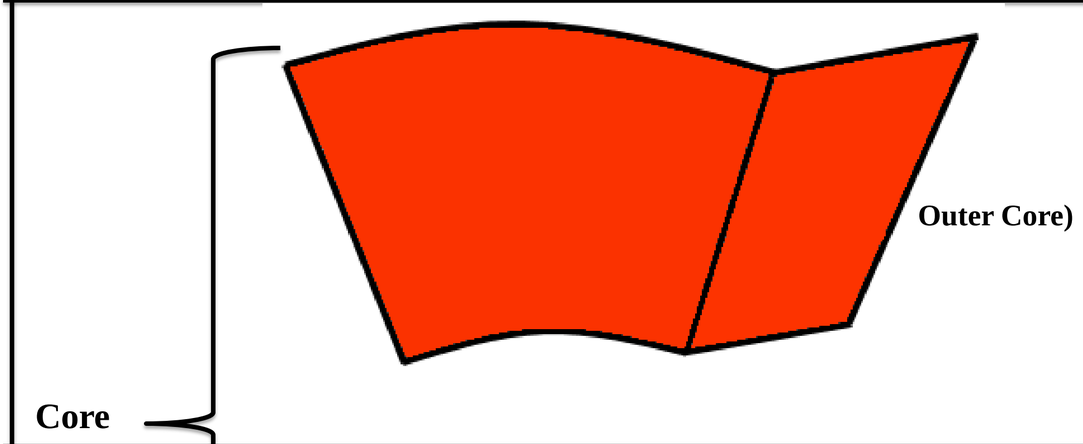
OUTER CORE

Composition
Iron (Fe) and Nickel (Ni)

Thickness
2,200 Km

State of Matter
Liquid

Temperatures in the outer core range from 4,000 °C to 5,000 °C. The outer core is molten Iron (Fe) and Nickel (Ni). The spinning currents of liquid Iron (Fe) in the outer core are what cause Earth's magnetic field which protects Earth from Solar winds stripping away the atmosphere.



INNER CORE

Composition
Iron (Fe) and Nickel (Ni)

Thickness
1,250 Km

State of Matter
Solid

Temperatures in the inner core range from about 5,000 °C to 6,000 °C. The inner core is a solid alloy of Iron (Fe) and Nickel (Ni). The inner core is a solid even though it is hotter than the outer core because it is under such high pressure.