AHW

12/5/21 How are the earth's layers different from each other?

Ans - The Crust

1. The crust is the uppermost layer of the Earth.
2. The crust varies in thickness from just around 5 - 10 km under the oceans, to around 35 - 70 km under the continents.
3. The crust is made up of two layers. The upper crust and the lower crust.
4. The upper crust makes up the continents which is made up of the minerals silica and aluminium and is therefore also called Sial.
5. The lower crust is a continuous layer of

denser rock that makes up the ocean floor which is made up of the minerals silica, iron and magnesium and is therefore called Sima

The Mantle

1. The mantle is situated just below the crust
2. It is about 2,900 km thick.
3. Based on its chemical composition, it is divided into the upper mantle and the lower mantle.
4. The upper mantle is a thin, stiff layer consisting mainly of the minerals silica, iron and magnesium and it is 300 km deep from the bottom of the crust.
5. The lower mantle extends from around 300 to 2900 km. It is a zone of mixed minerals such as iron, magnesium, aluminium and silicon with average temperatures 3000°C. The lower mantle is semi-solid, and materials here can move slowly in a plastic manner which is called magma.

The Core

1. The innermost layer of the Earth is the core.
2. The radius of the core is about 3500 km.
3. The core is further divided into the upper core and the inner core.
4. The outer core is 2300 km thick and is so hot that it is molten (liquid core)
5. The inner core is 1200 km thick and though hotter and it is under such extreme pressure that it remains solid (solid core) and it is hotter than that on the sun's surface.