

FORM 4 GEOGRAPHY NOTE 9

THE LAND

i. LAYERS OF THE EARTH

- Remember last year we talked about the layers of the earth.
- This year will be the same thing but with more layers added.

1. CRUST

a. Oceanic crust

- Narrowest, 0-10 km
- Made mostly of dense basalt
- 2/3 of the Earth's surface
- Younger than continental crust

b. Continental crust

- 35-70 km thick
- Made mostly of less dense granite
- Covers 1/3 of Earth's surface

c. Combined with the uppermost part of the mantle = lithosphere

2. MANTLE

i. a. Lower mantle

- a.k.a., mesosphere
- 2100 km thick
- Hot, semi-solid rock
- Consistency of hot asphalt

b. Upper mantle

- Composed of two parts
 - Asthenosphere is semi-solid or 'plastic' and is ~700 km thick
 - Uppermost part of the mantle is solid and ~100 km thick.

3. CORE

a. **solid** inner core

- 1,250 km thick **solid** inner core
- Temperature = 5500 to 7000 degree C (almost as hot as the sun)
- Composed of nickel and iron, solid due to extreme pressure

b. **Liquid** outer core

- 2,200 km thick liquid outer core
- Temperature = 6100 to 4400 degree C
- Composed of molten nickel and iron
- Outer core spins, creating the Earth's magnetic field that protects from solar wind.

ACTIVITY 1: Read the questions carefully before attempting them.

1. Draw and colour in your own structure / layer of the earth.
2. State each layer and describe each layers features.