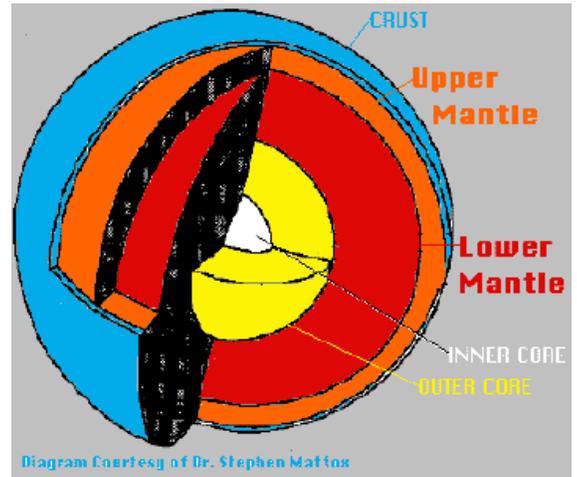


Source: [http://volcano.oregonstate.edu/vwdocs/vwlessons/lessons/Earths\\_layers/Earths\\_layers1.html](http://volcano.oregonstate.edu/vwdocs/vwlessons/lessons/Earths_layers/Earths_layers1.html)

Use the website above (and linked from my Blog) to fill in the outline below. Fill in information where some is missing.

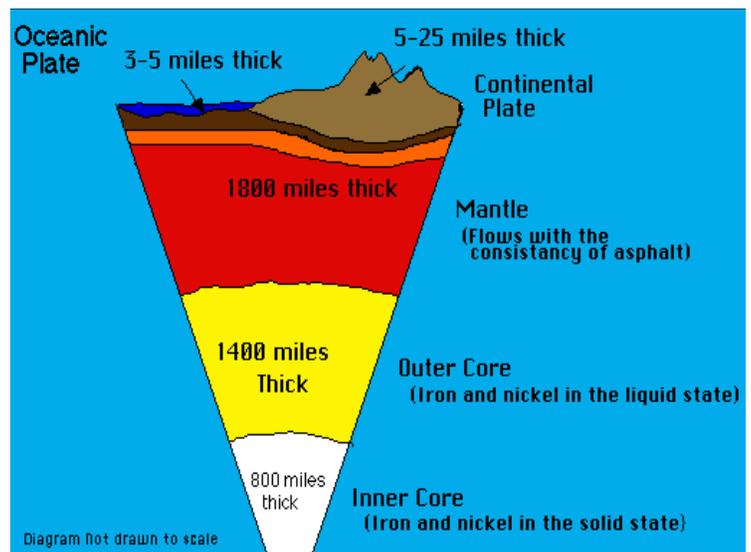
### I. Overview

- a. The Earth has \_\_\_\_\_ layers.
- b. Many geologists believe that as the Earth \_\_\_\_\_ the heavier, denser materials sank to the center and the lighter materials rose to the top.
- c. The \_\_\_\_\_ is made of the lightest materials (rock- basalts and granites) and the core consists of heavy metals (nickel and iron).
- d. The \_\_\_\_\_ is much hotter and has the ability to flow.
- e. The Outer and Inner Cores are hotter still with pressures so great that you would be squeezed into a \_\_\_\_\_ smaller than a marble if you were able to go to the center of the Earth!



### II. The Crust

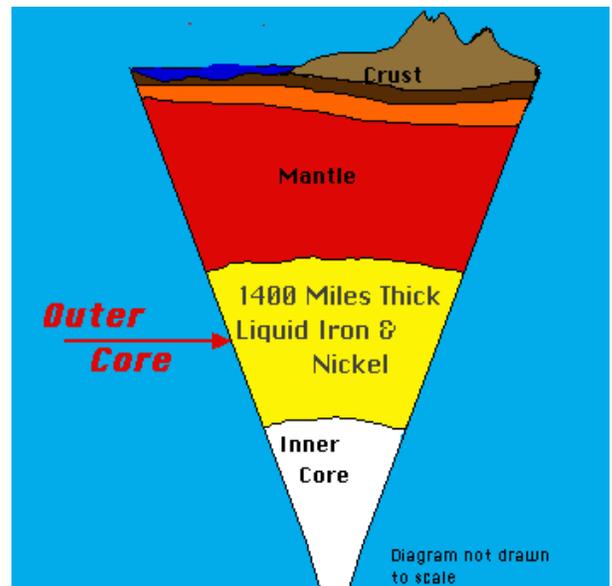
- a. The outer \_\_\_\_\_ of the Earth.
- b. It is very \_\_\_\_\_ in comparison to the other three layers.
- c. **Oceanic plate** (under the ocean)
  - i. Is \_\_\_\_\_ miles thick.
  - ii. Made mostly of \_\_\_\_\_.
- d. **Continental plate** (under the continents).
  - i. Is \_\_\_\_\_ miles thick.
  - ii. Made of mostly \_\_\_\_\_.
- e. Temperatures vary from air temperature on top to about \_\_\_\_\_ degrees in the deepest parts.



- f. Is broken into many pieces called \_\_\_\_\_.
- They " \_\_\_\_\_ " on the soft, plastic mantle which is located below the crust.
  - Usually move along smoothly but sometimes they \_\_\_\_\_ and build up pressure.
  - When pressure builds and the rock bends until it snaps an \_\_\_\_\_ occurs.

### III. The Mantle

- The thickest layer of the Earth.
- Is \_\_\_\_\_ miles thick.
- Flows with the consistency of \_\_\_\_\_.
- Varies in temperature from the top to the bottom.
  - Top can have a temperature of \_\_\_\_\_ degrees F.
  - Bottom temperature can be around \_\_\_\_\_ degrees F.
- Plates \_\_\_\_\_ on the mantle because it is made of thicker, denser material.



### IV. Outer Core

- Is \_\_\_\_\_ miles thick.
- Made of \_\_\_\_\_ and \_\_\_\_\_ in the liquid state.
- Ranges from \_\_\_\_\_ degrees F. to \_\_\_\_\_ degrees F.
- It is \_\_\_\_\_ miles beneath the Earth's crust.

### V. Inner Core

- Is \_\_\_\_\_ miles thick.
- Begins about \_\_\_\_\_ beneath the crust.
- Temperatures may reach \_\_\_\_\_ degrees F.
- Made of \_\_\_\_\_ and \_\_\_\_\_ in the solid state.
- Pressures are 45,000,000 pounds per square \_\_\_\_\_. This is 3,000,000 times the air pressure on you at sea level!!!
- Temperatures and \_\_\_\_\_ are so great that the metals are squeezed together and are not able to move about like a \_\_\_\_\_, but are forced to vibrate in place as a solid.