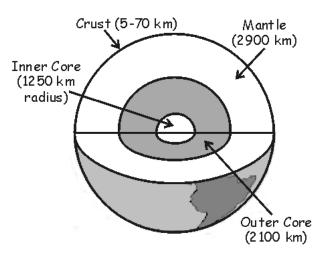
# Notes: Plate Tectonics and Pangaea, Introduction

Name

I. The earth is divided into \_\_\_\_\_ main layers based on composition and state of matter.



A. <u>Inner Core</u>- It is very hot, but it **is a solid** because it is under so much pressure

from all of the layers above it. Made of \_\_\_\_\_- very dense metal

B. <u>Outer Core</u>- - Made of Iron and Nickel

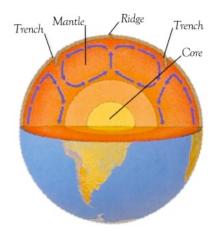
C. <u>Mantle</u>-\_\_\_\_\_- peanut butter-like consistency. It can flow and move, but is almost solid in places. Made of lighter elements. \_\_\_\_\_\_ occur in the mantle.

D. <u>Crust</u>-\_\_\_\_. We live on the crust. Made of mostly\_\_\_\_\_.

Made up of rocks and sediments. Divided into \_\_\_\_\_\_ that move around on the mantle.

### **II.** Convection in the Mantle

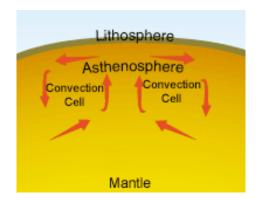
- B. <u>Convection Current-</u> when material is heated, it becomes \_\_\_\_\_\_ and rises. Then it cools, becomes \_\_\_\_\_\_ and sinks again.

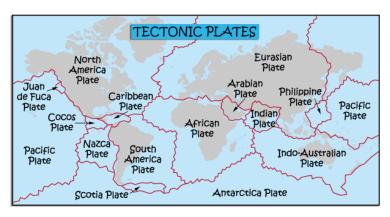


### **III. Plate Tectonics**

- A. The solid, outer part of the crust and upper mantle is called the \_\_\_\_\_.
- B. The lithosphere floats on the liquid-like part of the mantle, which is called the

- The lithosphere is broken into sections called \_\_\_\_\_\_. The plates get carried along as the asthenosphere moves due to \_\_\_\_\_\_\_, like a raft in a river.





## **IV. Alfred Wegener**

A. Alfred Wegener believed the crust of the earth moved as early as the 1800s, but he couldn't explain what made them move. He called his idea \_\_\_\_\_\_. He thought the

# plates moved because of 4 reasons:

 #1- The \_\_\_\_\_\_\_ of the continents look like they fit together like a puzzle.

 \_\_\_\_\_\_\_\_- supercontinent when all the continents joined together.

 #2. \_\_\_\_\_\_\_\_ on continents beside each other match up.

 #3. \_\_\_\_\_\_\_\_ types and \_\_\_\_\_\_\_\_ on continents beside each other match up.

 #4. Warm \_\_\_\_\_\_\_\_ fossils are found in Antarctica, and there is evidence of \_\_\_\_\_\_\_ in places that are now tropical. A possible explanation is the continents moved.

### **Questions:**

1. How many layers is Earth divided into?

2. A \_\_\_\_\_\_ forms when all continents are joined together.

3. What is the name of **Earth's last super-continent**?

3. What action in the mantle causes the Oceanic and Continental plates to move?

4. In a **convection current**, \_\_\_\_\_\_ rises while \_\_\_\_\_\_ sinks.