Earth Systems   **Name_____**
Mr. Lloyd   **Date_____**
PLATE TECTONICS WORKSHEET   **Period_____**

On a separate piece of paper, use complete sentences to answer the questions.

For these questions, you will need to go to the following web-site:
http://volcano.und.nodak.edu/vwdocs/vwlessons/plate_tectonics/introduction.html
For a more complete explanation of the Earth's interior, go to http://www.naturalgas.org/EARTHINT.HTM#int

1. Make a model (drawing) of the Earth's structure, include the crust, core, and mantle.

2. Create a table of data about the layers of the Earth that includes thickness, composition, and temperatures.

3. What is the theory of continental drift?

4. Who proposed the theory? When?

5. What scientific data was used to support the theory of continental drift? Identify and explain at least four types of evidence.

6. What were the problems with the theory of continental drift?

7. Imagine that you are a scientist living at the time that Wagner proposed his theory. What might you have thought of his theory? What biases might you have had that would influence your acceptance of the theory?

8. What proposed explanations overcame the problem of how the continents moved?

9. How does the presence of ocean ridges and trenches support the theory that the continentals move?

10. How does sea floor spreading support the theory that continentals move?

11. How was sea floor spreading tested as a hypothesis?

12. How does the distribution of earthquakes support the theory?

13. In your own words, state the theory of plate tectonics.

14. How does the development of the theory of plate tectonics illustrate the changing nature of scientific knowledge?

15. How was the scientific method used to establish the theory of plate tectonics?

16. In your mind, what is a theory? Can theories change? Who makes theories? What has to happen to a scientific explanation for it to become a theory? (If you are having difficulties with this question, go to How DoYou Know IT's True? http://www.xenu.org/factnet/GEN/FILES/BOOKS/TRUE.TXT).