**Continental Drift and Plate Tectonics Webquest:**

**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_ Period \_\_\_**

Log on to [www.mshclass.weebly.com](http://www.mshclass.weebly.com) to complete the quest:

**Part A: Continental Drift <--Write this heading on your paper along with the numbers and letters.**
**1.** [**Continental Drift**](http://www.enchantedlearning.com/subjects/dinosaurs/glossary/Contdrift.shtml)

    a. What does the Theory of Continental Drift state?

    b. What is the name of the scientist that proposed the Theory of Continental Drift?

    c. What was Pangaea?

    d. What are the names of the two continents that Pangaea separated into?

    e. It has been proven that the Earth's present continents were once together as a Pangaea as seen from the [following evidence](http://library.thinkquest.org/17701/high/pangaea/):

               1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

               2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

               3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

               4.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Click the [“Piece”](http://library.thinkquest.org/17701/high/pangaea/) icon at the bottom of the page to advance one at a time, through the next few screens to answer these questions.

    a. How do the continental coastlines support the Theory of Continental Drift (Pangaea Theory)?

    b. Explain how fossil distribution supports the Theory of Continental drift.

    c. How do distinctive rock strata support the Theory of Continental Drift?

    d. How does coal distribution support the Theory of Continental Drift?

**Part B: Convection Current <--Write this heading on your paper along with the numbers and letters.**

[**Convection Current**](http://volcano.oregonstate.edu/education/vwlessons/lessons/Earths_layers/Earths_layers7.html)

1. What are convection currents?
2. In which of Earth’s layers do convection currents happen?
3. When convection currents flow in the mantle, they also move the \_\_\_\_\_\_\_\_\_\_\_\_ .

**Part C: Plate Tectonics**

**Click on the** [***“Historical Perspective”***](http://pubs.usgs.gov/gip/dynamic/dynamic.html) **icon on this website.**

1. What is a “plate” in geological terms?
2. What does the Theory of Plate Tectonics state?
3. What is the name of the theory that led to the development of the Theory of Plate Tectonics?

Click the back arrow of Internet Explorer to return to the homepage of http://pubs.usgs.gov/gip/dynamic/dynamic.html : Click on the “Understanding Plate Motions” icon on this website.
4. What are the three main types of plate boundaries?

 a. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 b. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 c. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part D: Divergent Boundary**

[Divergent Boundary](http://pubs.usgs.gov/gip/dynamic/understanding.html)

**Write the following sentence.**

1. Divergent boundaries occur along spreading centers where \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are moving \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and new crust is

created by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pushing up from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Illustrate a divergent boundary using this [website](http://msascienceonline.weebly.com/types-of-plate-boundaries.html) and try out the hand demonstration for understanding.

**Part E: Convergent Boundary**

**Scroll down to** [***Convergent Boundaries***](http://pubs.usgs.gov/gip/dynamic/understanding.html)

**Write the following sentence**

1. Convergent boundaries occur where plates are moving \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and sometimes one plate  \_\_\_\_\_\_\_\_\_\_\_\_\_ under another

2. What is the location where sinking of a plate occurs is called?

3.  The type of convergence--called by some a very slow "collision" --that takes place between plates depends on the kind of lithosphere involved.   Convergence can occur between what types of plates?

    a.

    b.

    c.

Scroll down to: Oceanic-continental convergence and look at the diagrams

4. Off the coast of South America along the Peru-Chile trench the oceanic Nazca Plate is pushing into and being subducted under the continental part of the South American Plate creating what?

5.  Click on the Rind of Fire photo.  What is the Ring of Fire?

6. The West coast of the United States has frequent volcanoes, use the ring of fire to explain why.

**Part F: Convergent Boundary Continued**

Scroll down to [Oceanic-Oceanic Convergence](http://pubs.usgs.gov/gip/dynamic/understanding.html) Section

1. When two oceanic plates converge, one is usually subducted  under the other, what is formed?

Scroll down to: [Continental-continental convergence](http://pubs.usgs.gov/gip/dynamic/understanding.html)
2. What mountain range demonstrates one of the most visible and spectacular consequences of plate tectonics?

3. What happens when two continents meet head-on, meet head-on and neither is subducted?

4. Visit this [website](http://msascienceonline.weebly.com/types-of-plate-boundaries.html) and illustrate on your own paper a convergent boundary.

**Part G: Divergent Boundary**

Scroll down to: [Transform Boundaries](http://pubs.usgs.gov/gip/dynamic/understanding.html)

Write the following sentence on your own paper.

1. The zone between two plates sliding horizontally past one another is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, or simply a \_\_\_\_\_\_\_\_\_\_\_.
2. Visit this [website](http://msascienceonline.weebly.com/types-of-plate-boundaries.html) and illustrate a transform boundary on your own paper.  Try out the hand demonstration.

**Part H: All three Boundaries**

1. Give an example of a spot in the [world](http://geology.com/plate-tectonics.shtml) where you can find each of the three types of boundaries.

          a.

          b.

          c.

2.  Even though plate boundaries produce devastating natural disasters such as earthquakes, volcanoes, and tsunamis, what are some [benefits](http://pubs.usgs.gov/gip/dynamic/tectonics.html)?