**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

# Plate Tectonics Webquest

## I. Layers of the Earth

1. **Go to:** [**http://www.learner.org/interactives/dynamicearth/structure.html**](http://www.learner.org/interactives/dynamicearth/structure.html)

* **Click on each layer of the Earth to see the properties and description of that layer.**

**What are the 4 main layers of the Earth?**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* **Roll your mouse over the crust. What do you notice about the thickness of the crust under the ocean, compared to the thickness of the crust under the continent?**
* **Roll your mouse over the word Mantle. The Mantle is divided into 2 layers, what are the names of the 2 layers? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
* **Name 3 facts about each layer.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Crust** | **Mantle** | **Outer Core** | **Inner Core** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## II. Pangaea & Continental Drift

1. **Go to** [**http://www.exploratorium.edu/origins/antarctica/ideas/gondwana2.html**](http://www.exploratorium.edu/origins/antarctica/ideas/gondwana2.html) **What are the two halves of Pangaea called? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
2. **When did Pangaea split into two landmasses? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
3. **Go** [**http://www.enchantedlearning.com/subjects/astronomy/planets/earth/Continents.shtml**](http://www.enchantedlearning.com/subjects/astronomy/planets/earth/Continents.shtml) **and watch the animation of Pangaea moving. Watch the movement of each continent.**

* **Describe the movement of India:**

**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

# Plate Tectonics Webquest (Part 2)

## III. Plate Tectonics

1. **Go** [**http://www.learner.org/interactives/dynamicearth/drift.html**](http://www.learner.org/interactives/dynamicearth/drift.html) **click on the answer to the question that is on the screen and then click on “how do we know?” Scroll to the bottom and click on the red words that say *Continents Over Time.* Read the instructions and complete the puzzle. Answer the bonus question.**

* **What did the bonus question say would happen?**

1. **Go to** [**http://www.learner.org/interactives/dynamicearth/plate.html**](http://www.learner.org/interactives/dynamicearth/plate.html)

* **What is the border between two plates called? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ boundary occurs when two plates are pushing toward each other.**
* **A divergent boundary marks two plates \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
* **A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ boundary occurs when two plates \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **Go to** [**http://www.learner.org/interactives/dynamicearth/slip.html**](http://www.learner.org/interactives/dynamicearth/slip.html) **Scroll to the bottom and click on “see what happens at different plate boundaries.” Move your mouse over the words on the diagram to learn more about the different types of boundaries. The first boundary picture is when an ocean crust collides with a continental crust.**

**What type of landform is formed in this picture? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a deep sided depression in the ocean floor.**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a hot, semi-liquid zone on which tectonic plates float.**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a rigid outer layer of the earth broken up into the tectonic plates.**

1. **Scroll down to the second boundary picture (the bigger pictures, not the little one). This is a picture of two continental crusts colliding with each other.**

**What type of landform is formed in this picture? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**What famous mountain chain was formed this way? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. **Click on next at the bottom of the page and click on start to start the animation.**

**What type of landform is formed in this animation? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Are the two plates in this picture continental or oceanic? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**