Evidence of Plate Motions Study Guide

| 1- What is the hypothesis of continental drift? | The hypothesis of the continental drift is that all the continents were once together but now they drifted apart over a long period of time slowly. |
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| 2- What is Pangaea? | Pangaea is a supercontinent that broke apart many years ago into other continents. |
| 3- What are at least two pieces of evidence from land features? | Mountain Ranges and Coal Deposits. |
| 4- What are at least two pieces of evidence from fossils? | Glossopteris and Mesosaurus fossils. |
| 5- What are at least two pieces of evidence from climate? | The poles and fossils. |
| 6- What are mid-ocean ridges? | Mid ocean ridges are underwater systems and are in the middle of the ocean. |
| 7- What is sea-floor spreading? | Sea floor spreading is tectonic plates that move apart and it destroys the crust and makes a new one. |
| 8- How does sea-floor spreading work? | Sea floor spreading works by molten rock flowing up in a crack in the Earth’s crust and hardens into a solid new rock on both sides. |
| 9-What is subduction? | Subduction is the sinking movement of the ocean floor back to the mantle. |
| 10- What are ocean trenches? | Ocean trenches are in the deepest parts of the ocean, the pressure there is very hard, and they are also undersea valleys. |
| 11- Describe the process of subduction in at least 5 steps. | Step 1- New oceanic crust becomes warm.  Step 2- As the rock cools and moves away it gets denser.  Step 3- The dense slab of the oceanic crust may meet another section of the ocean floor or continent.  Step 4- The oceanic crust becomes cooler, denser, and it will sink under a continent and it will get recycled.  Step 5- This will make volcanoes erupt and it will make a chain process of volcanic islands. |
| 12- Is the pacific ocean getting smaller or larger? Why? | The Pacific Ocean is getting smaller because the Pacific basin is surrounded by subduction zones so it is being recycled faster than it is being created so it's getting smaller. |