# Theory of Plate Tectonics

## Evidence Chart

| What did we observe about Earth's surface today? | How were those observations made by scientists? | What can we learn from those observations? |
|---|---|---|
| We saw mountains, valleys, and oceans. | | |
| Sometimes the ground shakes. | | |
| We saw damaged buildings and roads. | | |
| Locations of earthquakes and volcanic eruptions. | | |
| Land moves slowly. | | |
| Locations of fossils on several continents. | | |
| Locations of types of rock on several continents. | | |
| Earth gets hot as you go into the crust. | | |
| There are no S waves in some places on the opposite side of the world from an earthquake focus. | | |
| Some plates slowly move away from each other; There are fissures, volcanoes, and earthquakes where this happens. | | |
| Some plates slowly move towards each other; There are mountains and earthquakes where this happens if both plates are continental crust | | |

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|---|---|---|
| Some plates slowly move towards each other; There are mountains, volcanoes, deep trenches, and earthquakes where this happens if the plates are both oceanic or if one is oceanic and one is continental | | |
| Some plates slide sideways past each other. This can produce earthquakes and mountains. | | |