**Plate Tectonics**

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| **Objective** |  |  |
| 1. Explain how various mechanisms (mantle convection, ridge push, gravity pull) drive movement of the lithospheric plates. |  |  |
| 1. Infer the relationship between the type of plate boundary and the locations of various features such as ocean trenches, mountain ranges and mid-ocean ridges. (Relate to the development of the theory of plate tectonics and geologic time.) |  |  |
| 1. Compare magma and lava. Locate volcanoes and relate back to plate boundaries. Explain volcanic effects on the lithosphere and relate back to plate boundaries (convergent, divergent, transform) including lahar (mud) flows and ash in the atmosphere. |  |  |
| 1. Describe the anatomy of an earthquake. Locate earthquakes – epicenter and focal point – and relate to different types of plate boundaries. Explain how the release of energy of various types of earthquakes relates to magnitude, and P and S waves. |  |  |
| 1. Infer the locations of volcanoes, earthquakes and faults (strike-slip, reverse and normal) from soil, geologic and topographic map studies. (Relate fault locations/types to plate boundaries.) |  |  |
| 1. Make predictions based on data gathered over time in conjunction with various maps. |  |  |
| 1. Conclude the best location for various types of development to reduce impacts by geohazards and protect property. |  |  |
| 1. Explain precautions that can be made to protect life from various geohazards and include meteorological hazards. Some examples include landslides, earthquakes, tsunamis, ~~sinkholes~~, ~~groundwater pollution, and flooding~~ |  |  |