

## Handout: Tectonic Plate Boundaries

Boundary Type	Boundary Characteristics
Convergent (Subducting)	<p><b>Volcanoes</b> locate roughly parallel to the plate boundary and generally form a tight line. Volcanoes can be part of high mountain systems or island chains.</p> <p><b>Shallow earthquakes</b> on both sides of the plate boundary and <b>intermediate and deep earthquakes</b> on one side of the boundary. Earthquakes of different depths tend to form bands at increasing depth at increasing distances from the plate boundary.</p> <p>There is <b>no consistent seafloor age</b> along this boundary.</p> <p>One side of the boundary is associated with <b>shallow water, islands in an arcuate shape, or high mountains</b> while the other side is of normal or deep oceanic depth.</p>
Convergent (continent-continent)	<p>Often <b>no volcanic</b> activity.</p> <p>Marked by very diffuse zone of mostly <b>shallow earthquakes, but sometimes intermediate</b> in depth.</p> <p>Some of the <b>highest mountains</b> in the world are seen at this boundary.</p>
Divergent	<p>Only sporadically associated with <b>volcanoes</b> (on the data map).</p> <p>Dominantly <b>shallow earthquakes</b> on the plate boundary.</p> <p>The <b>age of seafloor</b> at the boundary is young. The seafloor age increases with distance from the plate boundary. The seafloor age shows a symmetric pattern away from the boundary in both directions.</p> <p>The boundary follows the peak of a <b>seafloor mountain range</b>. The water depth is greater on each side of the boundary and the depth change is usually roughly symmetric.</p>
Transform	<p>Maybe associated with a <b>broad zone of volcanic</b> activity or may have none.</p> <p>Associated often with many shallow <b>earthquakes</b> along a diffuse zone. The <b>age of seafloor</b> can vary along the boundary.</p> <p>No simple topographic pattern associated with this plate boundary.</p>