

Table 1.1: Key plate boundary types and their characteristics.

Boundary Type	Volcanism	Earthquake Activity	Bathymetry/Topography	Seafloor Age
Ocean-Ocean Convergent #1 and #2	Abundant volcanoes define a linear trend along boundary. Note that this trend is not exactly on the boundary but on one side.	Abundant earthquakes define linear trend along plate boundary. Pattern in data shows a change from shallow (0-33 km) earthquakes right along the boundary to progressively deeper earthquakes (up to 700 km depth).	Significant change in elevation on either side of boundary. One side has a deep sea trench, the other is relatively shallow and seafloor is closer to sea level.	No clear relationship
Ocean-Ocean Transform #3	Essentially absent. *Note: this is misleading as there is volcanism along the spreading segments that are offset by the transform boundary but this compilation shows only volcanic features observed above sea level.	Sparse shallow (0-33 km depth) earthquakes define linear trend along boundary.	Offsets in ridgeline (topographic high on seafloor) visible on map. Seafloor of different depth juxtaposed next to each other across boundary.	Offsets in seafloor age clearly visible on map (seafloor of different ages juxtaposed next to each other across boundary)
Ocean-Ocean Divergent #4 and #6	Spotty volcanism along ridge. *Note: this is misleading because this compilation shows only volcanic features observed above sea level.	Shallow earthquakes define linear trend along plate boundary. Earthquakes delineate plate boundary. Sparse along some segments of the boundary.	Topographic high along seafloor; ridge stands out as linear feature that stands taller than surrounding seafloor.	Symmetrical pattern on either side of the boundary; youngest seafloor along the boundary, progressively older away from the boundary.
Ocean-Continent Convergent #5	Abundant volcanoes define a linear trend along boundary. Note that this trend is not exactly on the boundary but on the continental side.	Abundant earthquakes define linear trend along plate boundary. Pattern shows a change from shallow (0-33 km) earthquakes right along the boundary to progressively deeper earthquakes (up to 700 km depth) as you move inland. Dominated by depths of 70-300 km.	Deep sea trench on oceanic plate side of boundary and high mountain range on continental side. Mountain range and trench follow along the boundary.	No clear relationship
Continent-Continent Convergent #7	Essentially absent. No volcanism.	"Cloud" of shallow (0-70km depth) earthquakes mostly on northern side of the boundary. Some dense clusters of earthquakes but generally more spread out than along other boundary types.	Broad (wide) and tall mountain range and plateau form along boundary.	N/A