

# Volcanoes at Plate Boundaries

## Convergent Plate Boundaries

- Between the two converging plates, if one or more is oceanic, it will sink into the mantle. As a plate sinks into the mantle, it will heat up, causing the mantle to melt. This creates volcanic arcs.
- Convergent plate volcanoes are often found along the Pacific Ocean basin.

### Study Tip

Knowing how volcanoes are formed, you can predict where to find volcanoes.

## Divergent Plate Boundaries

- Between two diverging plates, there will be lower pressure. Lowering pressure can lower the melting temperature of mantle, and therefore it causes mantle to melt. This creates volcanic **fissures**—cracks.
- Divergent plate volcanoes are often found at mid-ocean ridges, where seafloor is pulled apart to create new seafloors. They are also found when continents break apart.



Volcanic region along the Pacific basin

## Concept Check

- How are volcanoes created at converging plate boundaries?
- How are volcanoes created at diverging plate boundaries?
- What are fissures?