REVIEW: Features of Plate Tectonics

For each of the following plate boundaries, sketch a labelled cross-sectional diagram (side view) indicating relative plate movement, composition of the plates, and any relevant geologic features. Use your student book for reference.

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| --- | --- | --- | --- |
| **Transform Boundary** | | **Divergent Boundary** | |
| **Continental-Continental Convergence** | **Continental-Oceanic Convergence** | | **Oceanic-Oceanic Convergence** |

BLM 4-37, Features of Plate Tectonics Review

**Transform Boundary**

• Two plates slide past each other

• Produces earthquakes

• Example is the San Andreas Fault.

**Divergent Boundary**

• Occurs when magma from mantle rises and breaks through lithosphere, causing plates to separate and new lithosphere to be formed

• Associated with sea-floor spreading, high heat flow, new plate material, transform faulting, and many small earthquakes

• Examples are the Mid-Atlantic Ridge; the East African Rift.

**Continental-Continental Convergence**

• When two continental plates collide

• Results in mountain building

• Example is the Himalayas.

**Continental-Oceanic Convergence**

• When a continental plate collides with an oceanic plate; the denser plate subducts under the less dense plate

• Produces deep-sea trenches, earthquakes and chains of volcanoes

• Example is the Juan de Fuca Plate, which is being subducted under the North American Plate.

**Oceanic-Oceanic convergence**

• Dense oceanic plate subducts beneath another oceanic plate

• Produces deep-sea trench and volcanic chain of islands (island arcs)

• Example is Japan.