

Plate Tectonics: Plate Boundaries

Did you know that within the ground beneath your feet, there is a layer of the Earth that is moving constantly? All around us the top layer of Earth, or the lithosphere, is moving about a centimeter each year. That is about the width of your pinky fingernail. The lithosphere is made up of over 7 pieces called **tectonic plates**. This happens because the asthenosphere is the layer below the lithosphere and it is made up of flowing molten rock. As this molten rock flows, the tectonic plates float on top of the molten rock like large connected islands.

Each plate moves separately from the others, so the boundaries meet between each plate. When two plates move towards each other and collide, this is called a **convergence zone**. At a convergence zone, one plate will move beneath the other plate and melt into the asthenosphere. As the plates collide, the plate that rises above bends and creates mountains. The plate that melts into the molten rock below will eventually rise up creating a trench. The collisions between these plates will cause earthquakes and build volcanoes.

When one plate moves towards the other plate, it is also moving away from another plate. As plates move away from each other, this is a boundary called a **divergence zone**. This occurs when the molten rock comes to the surface pushing the plates apart. The molten rock cools at the surface creating new land in the form of ridges. Volcanoes are active around divergent zones.

Some plates move past each other back and forth. This boundary is known as a **transform boundary**. These plates do not build or take away land from either plate. Their movement back and forth will cause earthquakes to occur sometimes.

Use context clues to define the *key* terms!

Tectonic Plates

Convergence Zone

Divergence Zone

Transform Boundary
