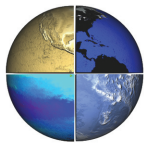


Say:

“The same thing happens beneath the surface of the Earth. Let’s watch how it happens.”

◊ Watch the **3D Convection** animation with students.



3D-VIEW

- Launch the 3D-VIEW menu by double-clicking on the desktop icon.
- Click on: Lithosphere.
- Click on: Lesson 4 - A Deeper Look At Plate Movement.
- Click on the **3D Convection Animation**.

Ask:



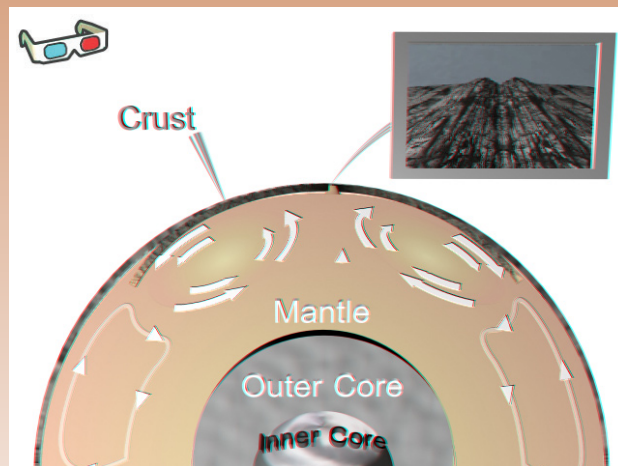
What do you see happening in this animation?

There are circular convection currents in the mantle. The plates ‘ride’ on the convection currents. There is magma coming up to the surface where the plates move apart from one another.

Say:

“Let’s read about what we just saw in the 3D Animation.”

Inside the Earth, the source of the heat is the extremely hot core. This heat from the interior rises toward the surface of the Earth. It causes liquid rock in the mantle to move with it. Hot and less dense liquid rock moves upward. Cool heavy rock sinks downward. This circular movement of matter is known as **convection**. Convection occurs within the liquid rock of the lithosphere’s mantle. In other Project 3D-VIEW units, we will see convection with *air in the atmosphere* and *water in the hydrosphere*.



3D Convection Animation

Scientists believe that convection in the mantle is the reason why the crustal plates move. The plates ‘ride’ on convection currents. The plate motions, of course, result in volcanoes, earthquakes, and mountain building. Convection caused Pangaea to break up. The convection currents pushed the continents to where they are today.