

How do rocks change when earth's plates move?

- **Claim:** Rocks can change when earth's plates move.

How do rocks change when earth's plates move?

- **Evidence:**
 - Granite changes to gneiss when it is placed under high heat and pressure.
 - This change happens because earth's plates can push rock deeper into the earth.
 - This shows how rocks within earth (i.e. mantle) will bend and warp because the heat makes them more ductile.
 - Rocks near the earth's surface will break because they are cooler. This was demonstrated when we broke a cold caramel.

How does force relate to plate movement?

- **Claim:**

Forces cause plates to move.

-or-

The amount of force needed to move a plate changes.

How does force relate to plate movement?

- **Evidence:**

- In our lab we learned that as friction increases the amount of force needed to move the plates increases.
- As plates move past each other, friction is generated by rocks grinding against each other and becoming “stuck.”
- The more friction that is generated, the more force that is needed to overcome the friction.

How are earthquakes explained by plate movement?

- **Claim:**

The movement of plates is the cause of most earthquakes.

How are earthquakes explained by plate movement?

- **Evidence:**

- As plates move past each other, they can become “stuck.”
- Force continues to apply building up pressure (potential energy).
- When the force of the moving plate is greater than the amount of friction, the plate suddenly moves (ruptures).
- The potential energy is transferred causing an earthquake.