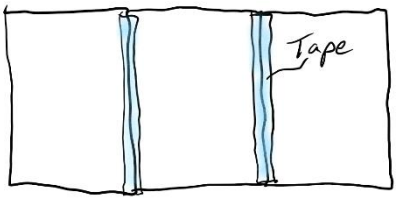
ESS Plate Tectonics Test Name: _____

(Medium Version – you get to keep 95% of the points that you earn)



Part 1: You have been given three sheets of paper. Tape them together to make continuous Plate Tectonics diagrams. Along the bottom of the page there are cross section diagrams, and along the top of the page there are satellite view diagrams.

Part 2: Across the middle of the page, in the boxes provided, write the names of all of the plate boundaries.

Part 3: Add the following to your diagrams…

- Draw volcanoes wherever they should exist. Make sure that their shapes are correct.
- Shade all of the materials appropriately (dark for mafic, light for felsic). On the map view, use dark shading for ocean crust.
- Draw arrows to show the movements of the plates and currents in the mantle.

Part 4: On the cross-section diagram, label all of the following **everywhere** that they occur.

- Subduction zone
- Mid-ocean ridge
- "New ocean crust forming"
- Composite cone volcano
- Shield cone volcano
- Ocean trench
- Tall mountains (that are not volcanoes)
- Hotspot
- Rift valley

Part 5: On the cross-section diagram, label each of the following **in one location** and describe it as either "more dense" or "less dense."

- Seafloor sediment
- Mantle
- Continental Crust
- Ocean Crust

Part 5: On the satellite-view diagram, label all of the following **everywhere** that each occurs.

- Transform boundary
- Tall mountains (that are not volcanoes)
- Mid-ocean ridge
- Ocean trench
- Composite cone
- Shield cone
- Hotspot
- Rift Valley

Part 6: Explain why the plates and mantle move. On the cross-section diagram…

- Choose one moving plate. Add a label explaining why it is moving.
- Choose one rising current in the mantle. Add a label explaining what causes that rising current.
- Choose one sinking current in the mantle. Add a label explaining what causes that sinking current.