EPS 200 (Stapleton)

Plate Tectonics Test Review

**There will be two tests. They can be retaken individually**

* **Test 1:** Multiple choice relating to
  + mafic/felsic properties
  + plate boundary feature names
  + real-world examples of tectonic features
  + characteristics of each type of plate boundary feature
* **Test 2:** Short answer and drawing
  + Answer 7-10 questions chosen from the 42 practice questions. Practice questions include
    - “Plate Tectonics Questions” -- Handout
    - “Plate Tectonics Questions, Part 2” -- Handout
    - The additional questions below (38-42).
  + Draw and label the features of two plate boundaries (chosen from the seven we drew in class). See #36 and #37 on “Plate Tectonics Questions, Part 2”

**Additional Plate Tectonics Questions (answers provided)**

38. What theory suggests that…

* …the Earth’s surface is made of plates of crust that ride over a flowing portion of the mantle; and…
* …those plates ride on convection currents that result from temperature variation within the hot, flowing, mantle; and…
* …this movement is responsible for landforms and events such as volcanoes, ocean trenches, ridges, rift valleys, and earthquakes.

**Plate Tectonics**

39. List three sources of the Earth’s internal heat.

* **Radioactivity in some rocks**
* **Compression**
* **Energy left over from past collisions**
* **Friction from iron sinking to the Earth’s core during Earth’s formation**

40. List the four main layers of the Earth, from outside to inside.

**Crust (or lithosphere), Mantle, Outer Core, Inner Core**

41. What is the name of the part of the mantle where scientists think convection currents flow, providing the forces that move the Earth’s plates?

**Asthenosphere**

42. What do scientists think are the primary constituents of the Earth’s inner and outer cores? Why is one liquid while the other is solid?

**The inner core is mostly solid iron, and the outer core is mostly liquid iron. The inner core is hotter, but there is too much pressure for the iron to exist in its liquid form.**