EPS 200 (Stapleton) Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Plate Tectonics Questions, Part 2

Where in the world can each of the following tectonic features be found?

28. Ocean Hotspot

29. Transform Boundary

30. Continent/Continent divergent boundary

31. Suppose you find a chain of shield volcanoes (round, with little slope) in the ocean. The volcanoes decrease in height toward the East. Explain why the volcanoes decrease in height, and also explain why the easternmost volcanoes are smaller than the western volcanoes in this chain.

32. Would you classify the eruptions in Hawaii as being on the explosive end of the spectrum or the gentle end of the spectrum (compared to other volcanoes)?

33. Eventually, a continent/continent divergent boundary turns into another type of plate boundary. What does it turn into?

34. What type(s) of tectonic activity can you expect at a transform boundary – volcanoes, earthquakes, lava, mountains???

35. Transform boundaries may exist in conjunction with convergent or divergent boundaries. Use two drawings to show how transform boundaries may form along either a convergent or a divergent plate boundary.

Draw and label a cross-section diagram for each of the tectonic features described below. In your diagram, be sure to include all of the following components:

1. Arrows indicating the direction of plate movement
2. The asthenosphere of the mantle, including arrows representing its currents
3. Seafloor sediment of appropriate thickness
4. Volcanoes of the right shape and composition
5. Labels indicating deep and/or shallow-focus seismic (earthquake) activity
6. Labels indicating mafic and/or felsic magma
7. Appropriate shading of all mafic and felsic materials
8. Labels indicating relatively explosive or gentle eruptions
9. The youngest rocks and the oldest rocks

**36. Ocean-Continent Convergent Plate Boundary**

**37. Ocean-Ocean Divergent Plate Boundary**