Plate tectonics, earthquakes, and volcanoes

Environment, Earth

Plate Tectonics, Earthquakes, and Volcanoes Renee Kuraly 1. There are 13 tectonic plates. (several smaller ones) 2. Evidence for continental drift includes: coastline fit, alignment of mountain ranges, similar rock sequences, fossils, modern fauna, and ancient climates. 3. We know plate boundaries exist because their defined by earthquake data and the depths of earthquakes show what type of boundary they are. 4. Divergent Boundary- places where plates are moving apart. Convergent Boundary- places where plates clash together. Transform Boundary-places where plates slide past each other. 5. At an oceanic divergent boundary you would find older rock away from mid-ocean ridges. 6. On continent-continent boundaries mountains are formed. 7. On ocean-ocean boundaries volcanoes and deep sea trenches are formed. 8. On ocean-continent boundaries deep sea trenches and stratovolcanoes. 9. Shallow earthquakes occur on transform boundaries between sections of mid-ocean ridges. 10. Hot spots are columns of hot material rising through mantle (plumes). 11. Hot spots seem to move over time because they are fixed in position under moving plates. 12. The islands that were formed by hot spots were: Iceland, Galapagos Island, and Hawaiian Islands. 13. The forces that drive plate movement are conduction and convection 14. Earthquakes are caused by rapid release of energy (seismic waves). 15. Surface waves and body waves differ because surface waves travel on earth’s surface, away from epicenter, but body waves travel towards earth’s interior spread outward from focus. 16. An earthquakes epicenter is located by multiple sites with a seismometer. The distance of the seismometer to the earthquake can be determined by the time between the arrival of P wave and arrival of S waves. 17. 3 types of volcanoes are Shield

Volcanoes, Cinder Cones, and Composite Volcanoes. 18. Volcanoes are beneficial because new landforms, minerals, and nutrients from broken down lava.