**Video 1 – The Earth’s Structure**

**Lithosphere**

**Continental crust**

**Asthenosphere**

**Oceanic Crust**

**Mantle**

**Outer Core**

**Inner Core**

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| **Lithosphere vs. Asthenosphere**  **Lithosphere – includes crust and upper most part of mantle**  **Asthenosphere – below the lithosphere; upper most part of the mantle;** | **How is the lithosphere divided?**  **Large pieces called tectonic plate** |
| **Describe what moves the lithosphere.**  **Currents within the mantle circulate that move the lithosphere** | **Where do most earthquakes & volcanos occur?**  **Along the colliding edges of most plates** |

**Video 2 – Plate Tectonics**

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| **Explain Plate Tectonics**  **Explains how the forces within the earth move the plates around** | **As the mantle circulates… (three responses)**  **Crust slides around, pulls apart, pushes together, and reshapes land** |
| **The boundary between the two tectonic plates in the Atlantic Ocean form…**  **The Mid-Atlantic Ridge; pulling continents apart**  **What is created here? Volcanoes** | |
| **Where is most volcanic activity found?**  **At plate boundaries of tectonic plates** | **What can result when plates collide together?**  **mountains** |

**Video 3 – How the Inner Structure of Planet Earth Affects Plate Tectonics**

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| **Explain why the tectonic plates are moving.**  **Moving at about 1-2 inches a year**  **Material in the mantle is circulating because of the heat. Mantle material moves lithosphere** | |
| **Identify, describe, and draw the three types of plate movement.**  **Describe Drawing**   |  |  |  | | --- | --- | --- | | **1. Divergent boundary** | **Moving apart** |  | | **2. Convergent boundary** | **Colliding; coming together** |  | | **3.Transform boundary** | **Slide past** |  | | |
| **Explain the difference between magma and lava.**  **Magma – under the surface of earth**  **Lava – on surface of earth** | **Determine where new plate material is created**  **At mid-ocean ridges** |
| **Determine where plate material is destroyed. Create a drawing. When this occurs, what is it called?**  **At convergent boundaries; diving plate consumed back into mantle (subduction occurs); takes place at subduction zones** | |

**Video 4 – Plate Tectonics, Volcanoes, and Earthquakes**

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| **Explain the theory of plate tectonics.**  **Earth’s surface divided into plates; float on mantle; currents within mantle cause plates to move** | **Define a rift and what occurs here.**  **Found at mid-ocean ridges; a rift is a boundary between plates; magma seeps through rift creating new crust** |
| **What forms at convergent boundaries?**  **Land buckles upward forming mountains** | **Describe how a volcano forms at a convergent boundary.**  **Magma forces way through cracks in crust; pressure builds up until it can push through surface of earth** |
| **What causes earthquakes (think stress)?**  **Rock bends (under stress) as plates move under pressure; when pressure too great, releases energy in form of waves causing the earth to shake** | **What is the name of the fault where scientists are studying?**  **San Andres Fault in California** |