**Ch. 11 Continental Drift/Seafloor Spreading Notes**

Essential Question: What evidence did Wegner and Hess find that helped explain how the planet looks today?

1. Continental Drift and Seafloor Spreading
   1. Alfred Wegner
      1. Hypothesized continents were joined together and have drifted apart over time.
      2. Named the large landmass Pangea
      3. Could not explain how continents moved and his hypothesis was rejected
      4. Wegner’s Evidence
         1. From land features: mountain ranges lining up on continents when pieced together
         2. From fossils: ancient organisms preserved in rock occurred on now separate continents
         3. From climate change: scratches on rocks from glaciers in places with much warmer climates
   2. Henry Hess
      1. Proposed seafloor spreading
         1. Sea-floor spreads apart along both sides of a mid-ocean ridge as new crust is added
         2. Oceans floors move like a conveyor belt and move the continents with them
         3. Eventually the ocean floor sinks into deep-ocean trenches (deep underwater canyons) where subduction (ocean floor sinks back into mantle) takes place happens over tens of millions of years.
      2. Hess’s evidence
         1. From molten material: pillow shaped rocks formed if molten material erupts and hardens quickly.
         2. From magnetic stripes: rocks that lie in a patter showing a record of reversals of Earth’s magnetic field
         3. From drilling samples: rocks farther from a mid ocean ridge are older than the rocks nearest the ridge