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Mr. Schmidt Science 8

continental drift Pangaea isochron magnetic reversal

magnetometer paleomagnetism seafloor spreading convergent boundary

divergent boundary rift valley subduction tectonic plate

transform boundary ridge push slab pull

1. Rift valley – long, narrow depression that forms when continental crust begins to separate at a divergent boundary.
2. Magnetometer – device used to map the ocean floor that detects small changes in magnetic fields.
3. Pangaea – ancient landmass made up of all the continents that began to break apart about 200 mya.
4. Slab pull – tectonic process associated with convection currents in Earth’s mantle that occurs as the weight of the subducting plate pulls the trailing lithosphere into a subduction zone.
5. Divergent boundary – place where two Earth’s tectonic plates are moving apart; is associated with volcanism, earthquakes, and high heat flow, and is found primarily on the seafloor.
6. Continental drift – Wegener’s hypothesis that Earth’s continents were joined as a single landmass, called Pangaea, that broke apart about 200 mya and slowly moved to their current positions.
7. Paleomagnetism – study of Earth’s magnetic record using data gathered from iron-bearing minerals in rocks that have recorded the orientation of Earth’s magnetic field at the time of their formation.
8. Isochron – imaginary line on a map that shows points of the same age; formed at the same time.
9. Magnetic reversal – when Earth’s magnetic field changes polarity between normal and reversed.
10. Seafloor spreading – the hypothesis that new ocean crust is formed at mid-ocean ridges and destroyed at deep-sea trenches; occurs in a continuous cycle of magma intrusion and spreading.
11. Tectonic plate – huge pieces of Earth’s crust that cover its surface and fit together at their edges.
12. Ridge push – tectonic process associated with convection currents in Earth’s mantle that occurs when the weight of an elevated ridge pushes on oceanic plate toward a subduction zone.
13. Convergent boundary – place where two tectonic plates are moving toward each other; is associated with trenches, island arcs, and folded mountains.
14. Subduction – process by which one tectonic plate slips beneath another tectonic plate.
15. Transform boundary – place where two tectonic plates slide horizontally past each other; is characterized by long faults and shallow earthquakes.