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**Notes on: PLATE TECTONICS**

**Plate Tectonics:**  \*Theory which says that the Lithosphere is divided into crustal

PLATES and that EACH plate moves on the

PLASTIC asthenosphere.

\*These plates COLLIDE with, slide UNDER, or move

PAST adjacent plates.

\*Caused by CONVECTION of heated

MAGMA rising from the CORE and

cooling magma SINKING back down.

**Alfred Wegener:**  \*He noticed that the coastlines of AFRICA and South

AMERICA looked like they might fit together.

\*He discovered evidence of the same plant and animal

FOSSILS along the coasts of these continents.

\*He also noticed that geologic FORMATIONS like

mountain RANGES on the two continents also

matched UP.

\*Wegener called the original landmass “PANGAEA.”

**Evidence for Plate Tectonics:**

\*AFRICA and South AMERICA fit like

puzzle PIECES

\*Similar ROCKS, Fossils, and MOUNTAINS in

different Continents.

**Evidence for Plate Tectonics:**

\*PLATE Boundaries and MOVEMENT

Earthquakes, Tsunamis and VOLCANOES occur

along Plate BOUNDARIES

\*With Satellite GPS we can directly observe plate movement. Plates

move about 1 Inch per year.

**Evidence for Plate Tectonics:**

\*Sea-Floor SPREADING at the mid-ocean

RIDGES

\*Paleomagnetism: Earth’s magnetic POLE switches every

100,000 to 1 million years. This leaves evidence in the new ROCKS at mid-ocean RIDGES.

\*Mid-Atlantic Ridge has a ZEBRA striped pattern of

POLARITY.

**Types of Plate Boundaries:**

**Divergent Boundary**

\*To Diverge means to MOVE APART

\*This is where MID-OCEAN ridges occur

**Convergent Boundaries**

\*To Subduct means to GO UNDER

\*May create TSUNAMIS

\*Usually creates VOLCANOES and MOUNTAINS

**Transform Boundary**

\*Plates slide PAST each OTHER

\*EARTHQUAKES occur here