Name_____Date_____Hour_____

Science 9: Plate Tectonic Notes

Pangaea

- Alfred Wegener discovered that the eastern coast of _____and the western coast of_____ fit together like puzzle pieces
- He pieced all the continents together to form a super continent named _____.
- Using the remains of ancient organisms, he showed that _____the same kinds of animals lived on continents that are now oceans apart

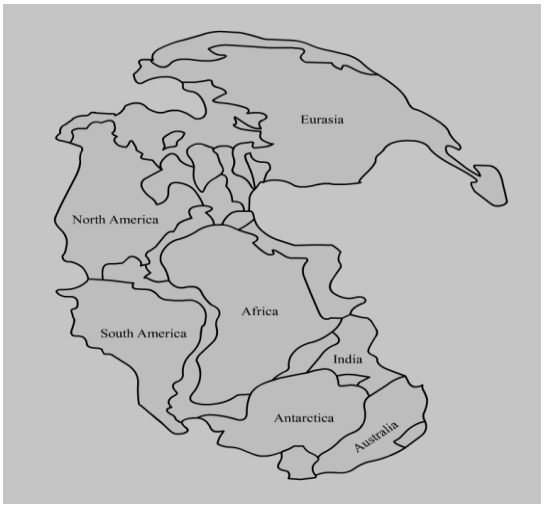


Plate Tectonics

- Earths stiff outer shell is called the _____.
- It consists of the _____ and rigid upper portion of the _____
- Made up of 7 large pieces called_____.
- The theory describing the_____ of plates is called_____ theory.

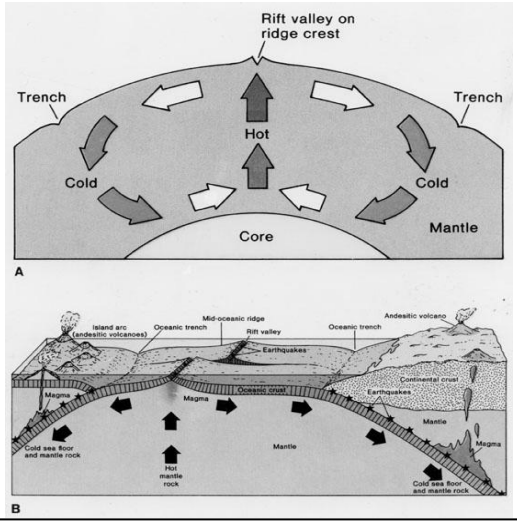
Why do the plates move?

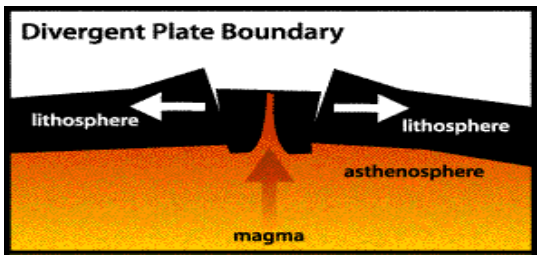
One hypothesis suggests that plate movement results from _____currents in the _____.

Asthenosphere is the hot, _____of the mantle.

The Theory of _____-

Earth's Crust and _____ are broken into plates and move around on the _____ (asthenosphere)

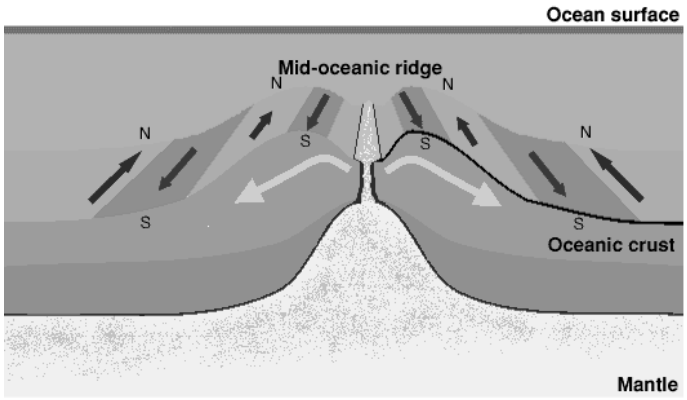




Divergent Plate Boundaries: _____ _____; a gap is created

Hot magma rises from the asthenosphere and _____ _____lithospheric rock.

The two diverging plates then pull the new_____ away from the gap.



Sea floor spreading at the mid-oceanic ridge

direction of Earth's magnetic field (recorded in solidified lava)

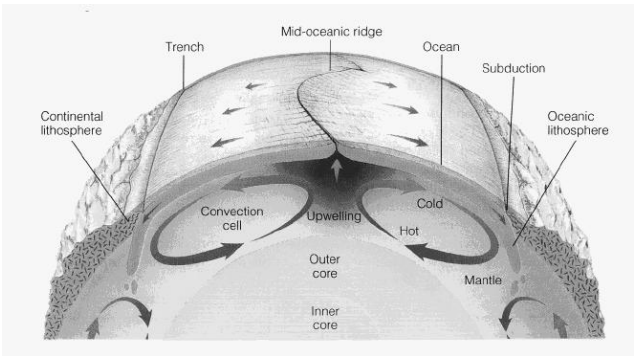
_____are mountain ranges that form at divergent boundaries in oceanic crust.

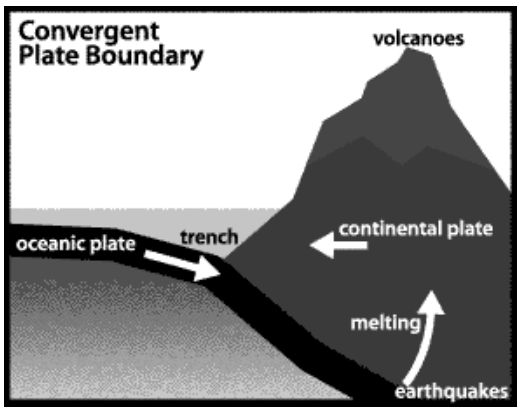
Magma rises from between the two _____ _____and fills the gap.

New oceanic crust forms a large central valley, known as a_____.

The most studied Mid-Oceanic Ridge is the_____ _____.
It runs down the center of the Atlantic Ocean from the _____to an area off the southern tip of _____.

Also found at Great Rift Valley (_____)





Convergent Plate Boundaries: Can be an oceanic plate diving beneath _____or _____ plates.

Andes Mountains is an example when _____plate slammed into _____plate.

oceanic plate is more_____ & dives beneath the continental plate. This process is called _____.

Ocean trenches, mountains, and volcanoes are formed at _____

High _____cause plate to melt and form magma.

Parts of an Ocean–Continent Convergent Plate Boundary

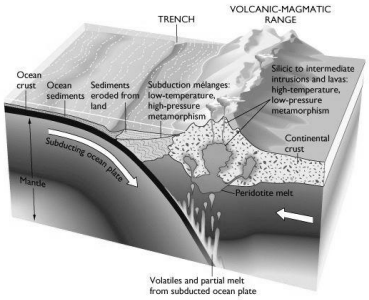


Fig. 20.19

<u>Two Types</u>:
1. _____
2._____

Collision zone – 2 plates of similar densities collide
- Causes upward thrust, forming a mountain range

Examples: