**Tectonic Forces Notes**

* The Earth’s \_\_\_\_\_\_\_\_\_\_ is divided into \_\_\_\_\_\_ major plates which are moved in various directions.
* This plate motion causes them to \_\_\_\_\_\_\_\_\_\_\_\_\_, pull apart, or \_\_\_\_\_\_\_\_\_\_\_\_\_\_ against each other.
* Each type of interaction causes a characteristic set of Earth structures or “tectonic” features.
* The word,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, refers to the deformation of the crust as a consequence of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ interaction.

**What are tectonic plates made of?**  
Plates are made of rigid \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.   
The lithosphere is made up of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the upper part of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**What lies beneath the tectonic plates?**  
Below the lithosphere (which makes up the tectonic plates) is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Plate Movement**:  
“Plates” of lithosphere are moved around by the underlying hot mantle \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Three types of plate boundaries**:  
1.  
2.  
3.

**Divergent Boundaries**:  
Spreading ridges: As plates move apart \_\_\_\_\_\_\_ material is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to fill the gap.

**Convergent Boundaries**:  
There are three styles of convergent plate boundaries

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Continent-Continent Collision Forms \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, e.g. European Alps, Himalayas

Continent-Oceanic Crust Collision:  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_-The downward and sideways \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the edge of a plate into the mantle \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ another plate.

* Oceanic lithosphere subducts \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the continental lithosphere
* Oceanic lithosphere \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and dehydrates as it subsides
* The melt \_\_\_\_\_\_\_\_\_\_\_\_\_\_ forming \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* E.g. The Andes

Ocean-Ocean Plate Collision:  
When two oceanic plates collide, one runs over the other which causes it to sink into the mantle forming a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

* The subducting plate is bent downward to form a very deep depression in the ocean floor called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* The worlds deepest parts of the ocean are found along trenches.
  + E.g. The Mariana Trench is 11 km deep (almost 7 miles)!

**Transform Boundaries**:   
Where plates slide \_\_\_\_\_\_\_\_\_\_ each other

**Volcanoes and Plate Tectonics**:  
Volcanoes are formed by  
1.  
2.  
3.

**What are hotspot volcanoes?**  
Hot mantle plumes breaching the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the middle of a tectonic plate.  
The tectonic plate moves over a fixed hotspot forming a \_\_\_\_\_\_\_\_\_\_\_\_\_ of volcanoes.  
The volcanoes get \_\_\_\_\_\_\_\_\_\_\_\_ from one end to the other.   
  
**Earthquakes and Plate Tectonics**:  
As with volcanoes, earthquakes are \_\_\_\_\_\_\_\_\_\_randomly distributed over the globe.  
At the boundaries between plates, \_\_\_\_\_\_\_\_\_\_\_\_ causes them to stick together. When built up energy causes them to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occur.  
  
Earthquakes form along fault lines.

**Summary**:  
On the surface of the Earth are tectonic plates that slowly move around the globe

* Plates are made of crust and upper mantle (lithosphere)
* There are 2 types of plate
* There are 3 types of plate boundaries
* Volcanoes and Earthquakes are closely linked to the margins of the tectonic plates