

Name: _____ Date: _____ Period: _____

Plate Tectonics Notes: Layers and Composition

The theory tells us why we have mountains, earthquakes, volcanoes, and continents.

It also tells us the Earth is broken into plates or pieces.

The plates move around the planet, at a rate of 1 to 10 cm per year. Or about the same rate that your fingernails grow.

The Earth is split into layers by chemical and physical categories.

The Earth was once liquid, which caused dense stuff to sink and less dense stuff to rise.

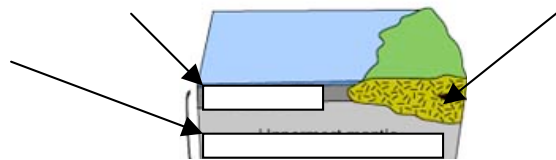
The plate we are living on is the North American plate
The major chemical layers are: crust, mantle, and core.

The major physical layers are: lithosphere, asthenosphere, and mesosphere.

Crust: (Label the layers)

Physical: _____

Chemical: _____ & _____



Oceanic crust is thin, young, and more dense
Continental crust is thick, old, and less dense
Why is the ocean crust way older?

Does the lithosphere move or just the crust? _____

What other 8 elements are in the crust? _____
They make up 80% of the crust

Mantle:

Physical: Asthenosphere able to flow
Mesosphere is rigid

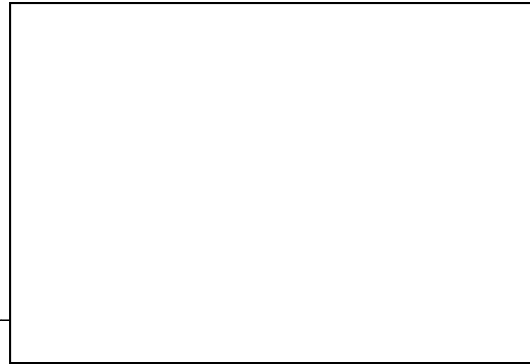
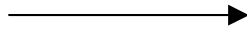
Chemical: _____, _____ & _____

What is isostatic rebound?

It is occurring in _____ and around the _____.

Convection Currents: move in a _____, this is what makes the plates _____.

(Draw convection current)



Core

Physical: an outer l _____ and s _____

Gives us our _____ field.

Solid because of high p _____.

Chemical: made both of _____ and _____

What you need to KNOW!

Earth's crust is **broken** into p _____. Earth is made of l _____.

Layers are classified by c _____ and p _____.

Physical layers are: L _____, A _____, M _____, I _____ & O _____ Core.

Chemical Layers are: C _____, M _____, and C _____.

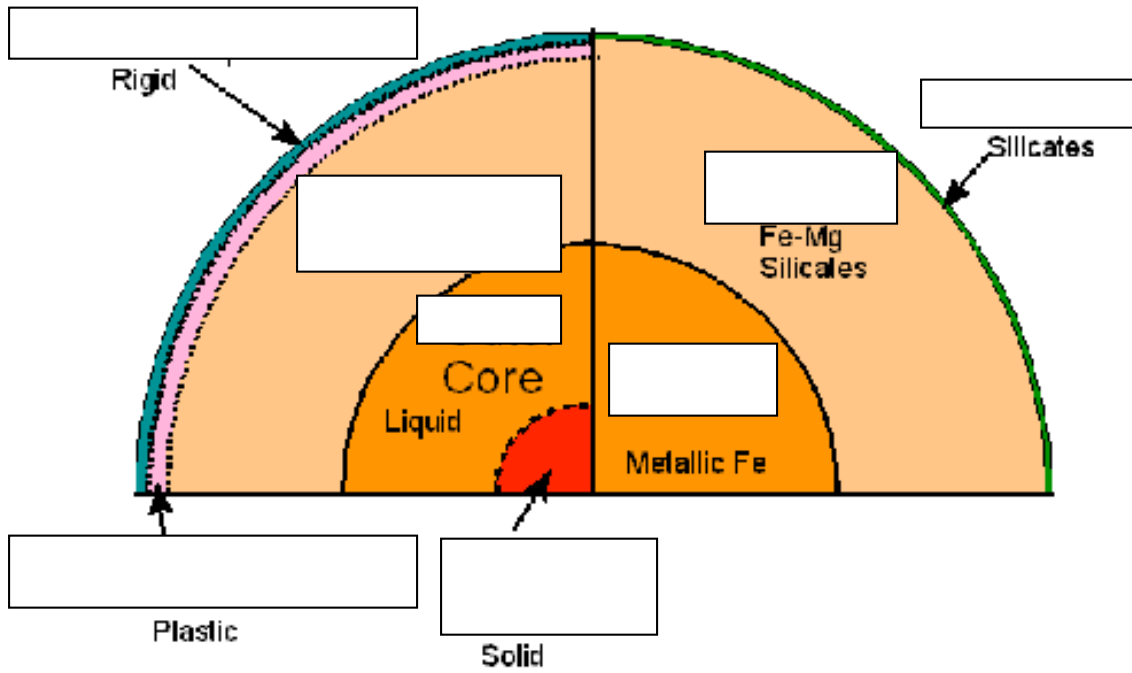
C _____ **Currents** are in the a _____, allow the plates to move. This layer behaves in a p _____ form.

Chemical layers: Crust _____ & _____, Mantle _____, _____, _____, Core _____ & _____

No Slide for but, why is the inner core solid, and what does it produce?

When the lithosphere “pop” back up from having a heavy mass on it, this is called

_____.



“Physical”

“Chemical”