

Name: \_\_\_\_\_

Key

Hour: \_\_\_\_\_

### Plate Tectonics Study Guide

Lithosphere

Describe what the lithosphere is made of and explain its position in the layers of the Earth.

- outermost layer (it contains the crust)
- consist of the crust and upper mantle
- all of the tectonic plates move within lithosphere

Crust

Describe the crust and its position within the layers of the Earth.

- outermost layer
- thinnest layer
- 2 kinds: oceanic and continental

Mantle

Describe the two parts of the mantle and their position within the layers of the Earth.

- Located between crust and core
  - Most of Earth's mass (67%)
  - Molten rock that is convecting
- cooler solids →  
hotter liquids ←

Outer core

Describe the outer core and its position within the layers of the Earth.

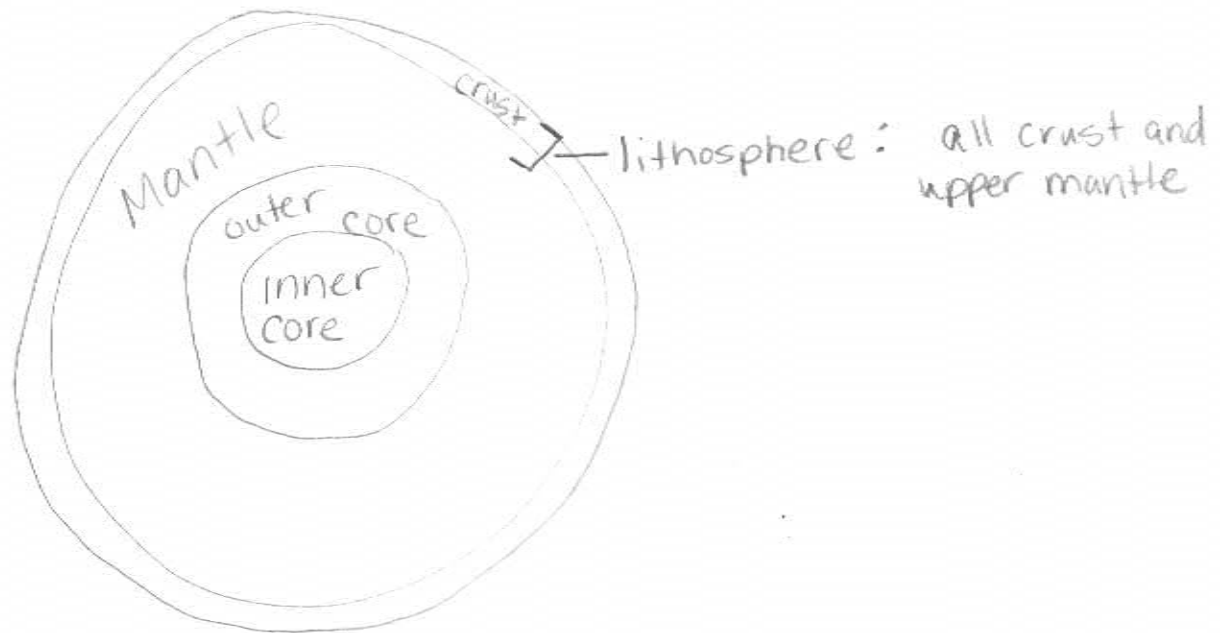
- Liquid iron and some nickel (a little cobalt)
- between inner core & mantle

Inner Core

Describe the inner core and its position within the layers of the Earth.

- Solid iron and nickel
- located at the middle of the Earth

Create a drawing of the Earth that shows the layers: lithosphere, crust, mantle, outer core, inner core.



Describe how the lithosphere and tectonic plates are related.

The lithosphere is made of tectonic plates which move across the mantle.

Draw arrows or describe the motion at convergent plate boundaries.



What consequences or formations do you find at convergent boundaries?

C = continental      O = oceanic

C + C = mountain ranges

C + O = subduction zones (loss of crust)

O + O = volcanoes / islands

Draw arrows or describe the motion at divergent plate boundaries.



What consequences or formations do you find at divergent boundaries?

mid-ocean ridges  
sea floor spreading (new crust)

Draw arrows or describe the motion at transform plate boundaries.



What consequences or formations do you find at transform boundaries?

Earthquakes

Describe the general distance that tectonic plates move each year.

1-2 cm

Describe or draw how the Earth can be compared to a magnet.

- Both have N + S poles
- Both have magnetic field
- Made of (attract) iron and nickel

Describe how a compass works in relation to the Earth?

North end of the magnetic compass needle attracts the south end of the earth's magnetic field. -OR- South end of magnetic compass needle attracts the north end of the Earth's