



Directed Reading Chapter 7 Section 3 *continued*

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**POSSIBLE CAUSES OF TECTONIC PLATE MOTION**

\_\_\_\_\_ 11. When rock is heated, it becomes less dense and tends to  
a. rise.  
b. sink.  
c. move sideways.  
d. erupt.

\_\_\_\_\_ 12. When rock cools, it becomes more dense and tends to  
a. rise to the surface.  
b. sink below the surface.  
c. move sideways.  
d. push against the surface.

13. Density changes in the asthenosphere are caused by the flow of  
\_\_\_\_\_ energy from deep within the Earth.

**Match the correct definition with the correct term. Write the letter in the space provided.**

_____ 14. plate motion due to higher densities	a. ridge push
_____ 15. plate motion due to gravity	b. convection
_____ 16. plate motion due to the heating and cooling of rocks	c. slab pull

**TRACKING TECTONIC PLATE MOTION**

\_\_\_\_\_ 17. How fast do tectonic plates move?  
a. kilometers per year  
b. meters per year  
c. meters per month  
d. centimeters per year

\_\_\_\_\_ 18. What do scientists use to measure the rate of tectonic plate movement?  
a. clinometers  
b. the global positioning system  
c. densitometers  
d. seismographs