

## Skills Worksheet

# Chapter Review

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**USING KEY TERMS**

1. Use the following terms in the same sentence: *crust*, *mantle*, and *core*.

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**Complete each of the following sentences by choosing the correct term from the word bank.**

asthenosphere                      uplift  
tension                              continental drift

2. The hypothesis that continents can drift apart and have done so in the past is known as \_\_\_\_\_.
3. The \_\_\_\_\_ is the soft layer of the mantle on which the tectonic plates move.
4. \_\_\_\_\_ is stress that occurs when forces act to stretch an object.
5. The rising of regions of the Earth's crust to higher elevations due to plate movement is called \_\_\_\_\_.

**UNDERSTANDING KEY IDEAS****Multiple Choice**

- \_\_\_\_\_ 6. The strong, lower part of the mantle is a physical layer called the  
a. lithosphere.  
b. mesosphere.  
c. asthenosphere.  
d. outer core.
- \_\_\_\_\_ 7. The type of tectonic plate boundary that forms from a collision between two tectonic plates is a  
a. divergent plate boundary.  
b. transform plate boundary.  
c. convergent plate boundary.  
d. normal plate boundary.

**Chapter Review *continued***

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- \_\_\_\_\_ 8. The bending of rock layers due to stress in the Earth's crust is known as  
a. uplift. c. faulting.  
b. folding. d. subsidence.
- \_\_\_\_\_ 9. The type of fault in which the hanging wall moves up relative to the footwall is called a  
a. strike-slip fault. c. normal fault.  
b. fault-block fault. d. reverse fault.
- \_\_\_\_\_ 10. The type of mountain that forms when rock layers are squeezed together and pushed upward is a  
a. folded mountain. c. volcanic mountain.  
b. fault-block mountain. d. strike-slip mountain.
- \_\_\_\_\_ 11. Scientists' knowledge of the Earth's interior has come primarily from  
a. studying magnetic reversals in oceanic crust.  
b. using a system of satellites called the *global positioning system*.  
c. studying seismic waves generated by earthquakes.  
d. studying the pattern of fossils on different continents.

**Short Answer**

12. Explain how scientists use seismic waves to map the Earth's interior.

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13. How do magnetic reversals in plate material provide evidence of sea-floor spreading?

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14. Explain how sea-floor spreading provides a way for continents to move.

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15. Describe two types of stress that deform rock.

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16. What is the global positioning system (GPS), and how does GPS allow scientists to measure the rate of motion of tectonic plates?

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**Chapter Review** *continued*

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**CRITICAL THINKING**

17. **Concept Mapping** Use the following terms to create a concept map: *sea-floor spreading, convergent boundary, divergent boundary, subduction zone, transform boundary, and tectonic plates.*

**Chapter Review** *continued*

18. **Applying Concepts** Why does oceanic lithosphere sink at subduction zones but not at mid-ocean ridges?

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19. **Identifying Relationships** New tectonic material continually forms at divergent boundaries. Tectonic plate material is also continually destroyed in subduction zones at convergent boundaries. Do you think that the total amount of lithosphere formed on the Earth is about equal to the amount destroyed? Why?

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20. **Applying Concepts** Folded mountains usually form at the edge of a tectonic plate. How can you explain folded mountain ranges located in the middle of a tectonic plate?

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**Chapter Review *continued*****INTERPRETING GRAPHICS**

Imagine that you could travel to the center of the Earth. Use the diagram below to answer the questions that follow.

Composition	Structure
Crust (50 km)	Lithosphere (150 km)
Mantle (2,900 km)	Asthenosphere (250 km)
	Mesosphere (2,550 km)
Core (3,430 km)	Outer core (2,200 km)
	Inner core (1,228 km)

21. How far beneath the Earth's surface would you have to go before you were no longer passing through rock that had the composition of granite?

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22. How far beneath the Earth's surface would you have to go to find liquid material in the Earth's core?

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23. At what depth would you find mantle material but still be within the lithosphere?

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24. How far beneath the Earth's surface would you have to go to find solid iron and nickel in the Earth's core?

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