

# Unit 5 Study Guide

Name \_\_\_\_\_

1. Complete the following table.

Layer Names:				
Temperature	0-1000°	4,000-5,000°	3,000-4,000°	1,000-3,000°
Density		Most dense		Second Least Dense
Composition	Solid rock containing silicon		Liquid Iron and nickel	
Thickness	5-70 km	1,300 km	2,200 km	2,900 km

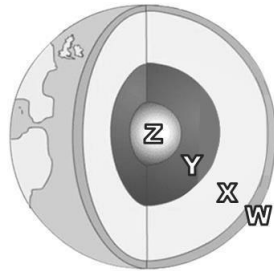
2. Order the layers from hottest to coldest:

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_

3. Order the layers from thickest to thinnest:

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_

4. Name the differences between layer W and layer X (seen in the diagram)?



5. How does density and temperature change as you move from crust to the core (as you go deeper)?

(Circle the word that completes the sentence correctly.)

6. Compared to the earth's outer core, the crust is (more/less) dense and (hotter/cooler).

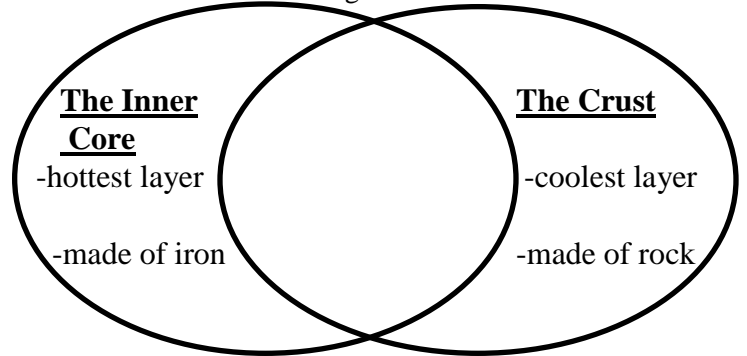
7. Compared to the outer core, the inner core is (more/less) dense and (hotter/cooler).

8. What keeps the inner core solid even though the temperature is very high?

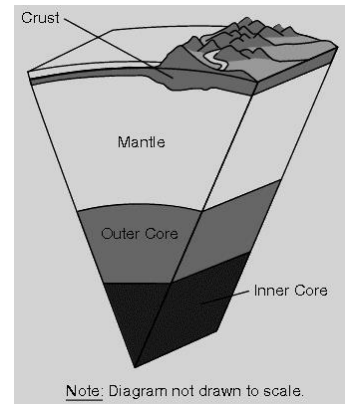
9. The Earth's mantle is made up of very hot material that rises to the top of the mantle, then sinks, and rises again, repeating the cycle. This action, which causes the Earth's crust to move, is known as \_\_\_\_\_.

11. Convection currents occur in the mantle. Choose the best words to make a statement which best describes the motion of convection currents: Warmer matter (rises/sinks) and is (more/less) dense.

10. List all information which can best completes the center of this venn diagram.



12. Use the diagram to answer the question. In which area of Earth are the tectonic plates located?



13. Weak spots in the crust where magma can flow on the Earth's surface form \_\_\_\_\_.

14. Why is the Atlantic Ocean getting bigger in size, while the Pacific Ocean is shrinking?

15. The San Andreas fault is a transform fault. Draw arrows on the map showing which way land would most likely move over thousands of years.



16. Rift valleys can form when fractures in Earth's crust widen. The valley walls slowly move at a rate of only a few millimeters a year. Rift valleys form where two plates move \_\_\_\_\_ each other.

17. Circle which of the following choices most likely would happen when oceanic crust and continental crust collide? (earthquake) (tsunami) (landslide) (volcano)

18. Explain how the Ring of Fire formed.

19. Circle all of the following which are how tsunamis are created? (underwater earthquake) (Volcanos in the ocean) (A landslide)

20. When two oceanic plates collide, this forms a convergent boundary. Circle which of the following land forms is created in this process. (Island Arc) (Trench) (Subduction Zone)

21. A student is studying a fossil of a fish that was found in the desert. What most likely describes why the fossil was found in the desert?



22. What name is given to the theory that the continents slowly move across the Earth's surface?

23. Scientist hypothesized that Earth's continents were once a single landmass that broke apart. The model below shows South America and Africa breaking apart over the last 200 million years. What evidence best supports this model?



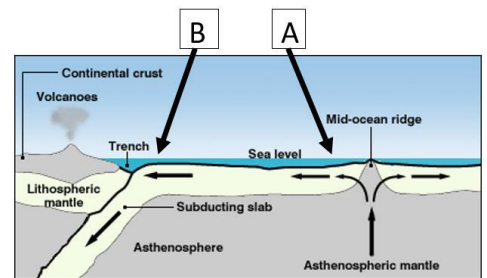
24. These maps illustrate various stages and locations of the world's continents. Which of the following is the maps in order showing the continents from Pangaea to today?



- A. X → Y → Z  
 B. Y → X → Z  
 C. Z → Y → X  
 D. Z → X → Y

25. Circle what type of fossil evidence support Wegener's Continental Drift Theory (Continents moving apart)? (Same/different) dinosaur's fossils found on (same/different) continents.

26. Two rock samples were taken from the ocean floor. Rock A was taken close to the mid-ocean ridge. Rock B was taken 500 miles away from the mid-ocean ridge. Which rock is younger and why?



27. Corals can only live in warm water. A fossil of a coral was found in the Arctic. How can you explain this?

28. Circle the type of evidence was NOT used by Alfred Wegener to support his Continental Drift hypothesis. Evidence from: (landforms) (fossils) (human remains) (climate)

29. What can fossils reveal about Earth's past? (circle the correct answer)  
 A. (Changes in Earth over time) OR (Present Earth)

B. (Earth's climate) OR (Earth's surface features)  
 OR (Both Earth's climate and surface features)

30. Evidence that North America used to be connected to Europe is given by the fact that the following two mountain chains seem to line up if the coastlines of North America and Eurasia are matched up: (Draw a line between the two correct mountain ranges)

- |                                  |                            |
|----------------------------------|----------------------------|
| <u>North American Mountains:</u> | <u>European Mountains:</u> |
| Rockies-                         | -Caledonides               |
| Appalachians-                    | -Himalayas                 |
|                                  | -Alps                      |