

Chapter 8 Study Guide – Earthquakes

1. What is an earthquake?
2. What is released when an earthquake occurs?
3. What causes an earthquake?
4. What is the elastic rebound hypothesis?
5. What are the 3 types of seismic waves? Describe how each wave moves. List in order from the greatest to the smallest strength of each wave. Which wave has the greatest speed? The slowest speed?
6. What is an epicenter? What is the focus? How are the two related?
7. What is a seismograph? Explain how it works. What do the vertical lines indicate on a seismogram?
8. When determining the location of an earthquake, what do you need to know? Make sure you know how to locate an earthquake.
9. How is the fact that S and P waves travel at different speeds useful in determining the location of an earthquake?
10. Describe the make-up of the inner and outer core.
11. How was this information gathered?
12. At what depth does the outer core begin? At what depth does the inner core begin?
13. Why is the inner core a solid at a higher temperature than the outer core at a lower temperature?
14. Describe the characteristics of Earth's mantle.
15. What is the boundary between the outermost layer of the earth and the mantle called? Who is it named after?
16. What are the two types of crust called? How are the types different?
17. Give the depths of all the Earth's layers.
18. How does temperature and pressure change as you move deeper into the Earth? How does the temperature and pressure affect the properties of the material found in the Earth?

Chapter 9 Study Guide – Plate Tectonics

1. Who came up with the hypothesis of continental drift?
2. What three types of evidence do we have to support continental drift?
3. By finding identical fossils in Africa and South America, what does this suggest?
4. Name the countries and continents glossopteris is found on.
5. Explain why it is thought that the continents were once closer together (use glossopteris as your evidence).
6. What does the presence of glossopteris in Antarctica suggest?
7. List several pieces of evidence that supports continental drift (use rock evidence as support).
8. What evidence is there to suggest the continents were closer together (use climate evidence as support)?
9. What is the theory of plate tectonics?
10. What are mid-ocean ridges? What goes on along the mid-ocean ridge?
11. What does the volcanic activity along the mid-ocean ridge lead to?
12. What is seafloor spreading? How does the ocean floor moving cause the continents to move?
13. Where are the youngest rocks found on the ocean floor? Where are the oldest rocks found?
14. What are trenches? Where are they formed?
15. What are subducting plates? Why do they occur?
16. Where are convergent boundaries found? Divergent boundaries? Transform fault boundaries?
17. What are the 3 types of convergent boundaries?
18. Give an example of a divergent boundary. Be specific.
19. When oceanic-oceanic convergent boundaries occur, what are formed?
20. When oceanic-continental convergent boundaries occur, what are formed?
21. Be able to explain the entire process of seafloor spreading.
22. What is paleomagnetism? How does paleomagnetism explain the theory of plate tectonics?
23. What does the theory of plate tectonics help us explain?

24. How are earthquakes and their foci related to the location in a trench system?
25. What are the causes of plate movements?
26. What is slab-pull? What is ridge-push?