

STUDY GUIDE CHAPTERS 11 & 12

EARTHQUAKE TOPICS:

1. Is it possible to fully predict exactly when an earthquake will occur? Explain.
2. Know the difference between the focus and the epicenter.
3. Know the definitions and drawings of P waves, S waves, and surface waves. Specifically, know how P and S waves travel.
4. Why do you need a minimum of 3 circles to find the epicenter of an earthquake? Include drawings.
5. For each of the 3 fault diagrams we studied, know the following:
 - know the pictures
 - know the type of fault (strike-slip, normal, reverse)
 - know the type of force (shear, tension, compression)
 - know the type of boundary (transform-fault, divergent, convergent)
 - know the type of movement (horizontal or vertical)
6. Discuss the phrase *elastic limit*. How does elastic limit relate to earthquakes?
7. For each type of wave, know the order of arrival. Also know the relative speed of each wave (slow/medium/fast).
8. Explain what tsunamis are. Also, are tsunamis “tidal waves”, or are they different?
9. Know what an earthquake’s magnitude is. Know how to complete sentences like: “Magnitude 7 is _____ times stronger than magnitude 5.” (Answer: 100)
10. Know what part of the country gets the most earthquakes. Why? What is located there?
11. How does a seismograph work? Draw a diagram and explain.
12. I will draw pictures of seismograph results. Label the waves. Know how to determine if the earthquake is close by or far away.
13. Be able to complete a chart like the one you did on the “Locating an Earthquake” lab. Be able to use a compass and draw circles to find the epicenter. Be able to read the chart that shows the time (min) and distance (km) for the P and S waves.

Name _____ Date _____ Period _____

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VOLCANO TOPICS:

1. Explain how electricity can be produced from geothermal energy.
Refer to pages 132-133 in the textbook.
KNOW ALL THE STEPS AND BE ABLE TO EXPLAIN.
2. Compare and contrast: vent, crater, caldera. Be able to draw each.
3. Know the 3 forms of volcanoes - compare/contrast each type.
(SHIELD, CINDER-CONE, COMPOSITE)
4. Be able to describe the 3 locations where volcanoes can occur.
(hot spot, convergent plate boundary, divergent plate boundary)
KNOW A LOT OF DETAILS!
5. Know what determines if a volcanic eruption will be QUIET or EXPLOSIVE.
6. Study the "Plate Tectonics Videolab". Study the map you drew. Be able to answer all the questions.
7. Be familiar with the formation of the Hawaiian islands.
(HOT SPOT)
8. Be familiar with the formation of the Peru-Chile Trench and the Andes Mountains.
(CONVERGENT PLATE BOUNDARY)
9. Be familiar with the formation of the Mid-Atlantic Ridge.
(DIVERGENT PLATE BOUNDARY)
10. Be able to DRAW and EXPLAIN the CONVECTION CURRENT diagrams for...
 - convergent plate boundary
 - divergent plate boundary

☺ THAT'S ALL, FOLKS! ☺