

Self-test: Earthquakes (CH 8)

Successful students test themselves before major tests and exams. You don't know what you don't know until you test yourself.

1. Start by answering all the questions you can without your notes or the book and circle these problem numbers. This is the material that you already understand pretty well.
2. For each question that you did not circle, write down the chapter and section number in the book (e.g. 4.1, 4.4) that covers this information.
3. Start by reading the entire section that you wrote down most often. Your goal is not to word search or to look up answers, but to read for understanding.
4. If you still do not understand the concept after careful reading, discuss the concept with a peer or the teacher.

1. The location on Earth's surface above the point where an earthquake starts is the _____.
2. Major earthquakes are sometimes preceded by a _____ with a magnitude of 4 - 5.
3. The springing back of rock after it has been deformed is known as the _____ hypothesis.
4. The seismic waves that travel through Earth's interior are _____ waves.
5. The amount of _____ between the P wave and S wave is used to calculate the _____ between the seismic station and the _____.
6. Moment magnitude estimates the amount of _____ an earthquake releases, and is derived from the amount of displacement along a(n) _____.
7. The tsunami warning system protects coastal areas around the _____ Ocean.
8. An area along a fault where there has not been any earthquake activity in a long period of time is called a(n) _____.
9. The relatively soft, weak layer of rock below the lithosphere is the _____.
10. The change in the physical properties of Earth's interior at the mantle-core boundary makes P waves _____ as they pass through the boundary.

Short Answer

11. Compare and contrast an earthquake focus and the epicenter of an earthquake.
12. What causes an earthquake?

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13. What are the smaller earthquakes called that may follow a major earthquake?
14. Draw an organization chart that includes the following: body waves, surface waves, p-wave, s-wave.
15. List the steps involved with locating the epicenter of an earthquake.
16. Describe the two types of measurements scientists use to describe earthquakes.
17. What are the 3 main factors that determine the amount of damage to buildings and other structures?
18. List at least four dangers that are associated with earthquakes.
19. Have scientists been successful in making long-range earthquake predictions? Explain your answer.
20. Briefly describe the composition and physical properties of Earth's mantle.
21. Why do meteorites that hit Earth provide evidence of the composition of Earth's interior?