

Part 1.

1. Describe what an earthquake is.
2. What type of earthquake is most common? How many of them occur each year?
3. Where did the worst earthquake (for loss of life) occur? When?
4. What are some of the side effects of earthquakes?

Part 2.

5. What is the major cause of earthquakes?
6. What are some of the minor causes of earthquakes?
7. Describe the *elastic-rebound* theory.

Part 3.

8. What determines the depth at which earthquakes occur?

9. How deep are the quakes along the San Andreas Fault in California?

10. How deep are the deepest earthquakes?

11. What is the actual place where the earthquake occurs called?

12. What is the epicentre?

Part 4.

13. Describe the three types of wave motion produced by earthquakes.

Part 5.

14. Describe how a seismograph works.

Part 6.

15. How does the difference in arrival times of *P* waves and *S* waves allow scientists to calculate the distance to the epicentre?
16. Using the time-travel graph on p. 275 determine the distance to earthquakes when the arrival time is a) 5 minutes, b) 7 minutes, and c) 4 minutes 30 seconds.
- a) b) c)

Part 7.

17. How many seismograph stations are needed to determine the epicentre of an earthquake?
18. Describe the process used to determine the epicentre.

Part 8.

19. What is meant by the magnitude of an earthquake?
20. What is the most common scale used to determine magnitude? Describe how this scale works.