

The Tech Museum Web Quest

1. a) What instrument measures seismic waves? _____
b) What is the record of those waves called? _____
c) When was the first of these instruments invented? _____

2. The movement of plates along faults is not smooth; instead, the plates move in _____ and cause _____.

3. About how deep do faults go into the earth? _____

4. Are tectonic plates flexible or inflexible? _____

5. What two types of seismic waves do earthquakes cause?

6. The movement of two everyday items can be compared to each of the types of waves; what are those items and which type of wave do they match up with?

7. In what order do the waves reach the seismograph?

8. How many seismograms from different locations does it actually take to locate the centre of the earthquake? _____

9. How does the Mercalli Intensity Scale (used to measure earthquakes) depend greatly on opinion? _____

10. What is the more commonly used measurement of an earthquake's intensity?

11. Provide 2 examples of how seismology can be used in areas other than earthquakes.

12. What is seismic tomography?

13. How deep does the crust go beneath the continents? _____
How about beneath the oceans? _____

14. The outer core of the Earth contains iron; what does this create? _____

15. Why is California a hotspot of earthquake technology?

16. a) When was the largest earthquake to occur along the San Andreas fault within the last 200 years and what did it measure on the Richter scale?

b) What type of damage did this earthquake cause?

17. Many earthquakes have occurred in California over the years. The 1989 Loma Prieta quake was centred in the Santa Cruz mountains. Damage was widespread in California. Why was the damage in San Francisco particularly severe?

18. a) What kind of plate boundary motion occurred during this quake? _____
b) Other than the quake damage, what was the long-lasting result of this quake?

19. How many hours of emergency supplies do you need to have when stocking up for earthquake preparation? _____

20. Why is it best not to include salty food in your emergency supplies?

21. Name 5 sanitation items that should be included in your supplies.

