

Chapter 6: Earthquakes

Section 6A: Tectonic Forces

1. What is an earthquake?

- The _____ of the _____ measurable by _____.

- Often associated with _____.

2. What kind of physical quantity is stress?

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3. What kind of stress is most likely to cause an earthquake?

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4. What is happening at convergent tectonic boundaries?

- Two _____ are moving _____ each other.

5. What are two ways that stress in a rock can be relieved?

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6. What properties of rocks could contribute to a serious earthquake?

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- Can store up a lot of _____ before _____.

Section 6B: Faults and Joints

7. What distinguishes a fault from a joint?

- A joint is a _____ in a _____ along which there has been _____.

- A fault is a _____ where:

8. How do geologists classify faults?

- By the way _____ of
_____ move relative to _____
_____.

9. What kind of fault is the San Andreas fault?

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10. Geologists believe that most earthquakes come from what kind of earth feature?

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Section 6C: Earthwaves and Seismology

11. What kind of instrument detects and transmits earth wave data to a central analysis station?

- A _____ detects earth _____ and transmits them to a _____.

- A _____ also _____ the earth waves.

12. What is the most basic part of a seismic instrument?

- The large mass that _____ as the earth around it _____.

13. List the types of earth waves that an earthquake produces.

An earthquake produces three kinds of waves:

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14. Through which structure inside the earth can S waves not pass?

- S waves cannot pass through the _____.

15. What is the significance of this fact?

- Geologists believe that at least part of the earth's _____ is _____.

16. Compare an earthquake's focus with its epicenter.

- _____ = _____ within the crust where the _____.

- _____ = the point on the _____ directly _____ the _____.

17. Why are there a lot of earthquakes around the rim of the Pacific Ocean?

- The _____ is _____ under the plates surrounding the _____.

- These _____ contain many _____ that produce _____.

Section 6D: Effects of Earthquakes

18. How much does an earthquake's energy change with each number on the Richter scale?

- For each additional unit on the Richter scale, an earthquake's energy _____ by a factor of _____.

19. What is the highest magnitude on the Richter scale?

- There is _____ value on the Richter scale.

- It does not _____ for earthquakes _____.

20 Besides the magnitude of an earthquake, what other major factor can increase seismic damage in even well-built areas?

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21. What is the maximum value on the intensity scale and what could be the observed result?

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- It represents essentially _____ within the earthquake area.

22. Why is it difficult to predict earthquakes?

- Seismologists _____ with certainty the _____ that an earthquake is about to happen.

23. Why is exercising dominion more about minimizing the risks associated with an earthquake than minimizing earthquake hazards?

- _____ of an earthquake cannot be changed.

- To _____ the likelihood that bad things will happen.

24. How do seismologists determine which locations have the greatest likelihood of earthquakes?

- Seismologists _____ earthquake _____ on _____.

- Patterns reveal _____.

25. For developing countries, what is usually the main factor that results in deaths during an earthquake?

- Poor _____ that is not _____.