

Standard 2.1.a, b, and c

Chapter 2 Section 2: Directed Reading Page 35

INTERNAL SOURCES OF ENERGY (page 35)

1. When Earth formed, its interior was heated by what two processes?

2. Because Earth's interior is warmer than its surface layers, hot materials move toward the surface in a process called _____.

Chapter 12 Section 1: Directed Reading Pages 296-298

SEISMIC WAVES (page 296)

- _____ 3. When rocks along a fault slip into new positions, they release energy in the form of vibrations called
 - a. tidal waves.
 - b. elastic waves.
 - c. seismic waves.
 - d. focus waves.

- _____ 4. Where do seismic waves travel?
 - a. outward in all directions from the focus through the surrounding rock
 - b. inward in all directions from the epicenter through the surrounding rock
 - c. outward in all directions from Earth's core through its surface
 - d. inward in all directions from the focus through the epicenter

- _____ 5. How many types of waves do earthquakes produce?
 - a. three
 - b. six
 - c. two
 - d. 10

In the space provided, write the letter of the definition that best matches the term or phrase.

- _____ 6. body wave
 - a. the fastest seismic wave; causes particles of rock to move in a back-and forth direction parallel to the direction in which the wave is traveling; can travel through solids, liquids, and gases

- _____ 7. p wave
 - b. the second-fastest seismic wave; causes particles of rock to move in a side-to-side direction perpendicular to the direction in which the wave is traveling; can only travel through solids

- _____ 8. s wave
 - c. a seismic wave that travels through the body of a medium

SEISMIC WAVES AND EARTH'S INTERIOR (page 298)

- _____ 9. The composition of the material through which P waves and S waves travel affects
- the power and duration of the waves.
 - the angle that the waves travel.
 - the speed and direction of the waves.
 - the intensity and composition of the waves.
- _____ 10. What type of materials do P waves travel through fastest?
- materials that are not rigid and not easily compressed
 - materials that are very rigid and not easily compressed
 - materials that are not rigid and are easily compressed
 - materials that are very rigid and are easily compressed
- _____ 11. What did Croatian scientist Andrija Mohorovicic discover in 1909?
- The speed of seismic waves increases abruptly at about 30 km beneath the surface of continents.
 - The speed of seismic waves decreases abruptly at about 30 km beneath the surface of continents.
 - The speed of seismic waves increases abruptly at about 30 km above the surface of continents.
 - The speed of seismic waves decreases abruptly at about 30 km beneath the surface of oceans.
12. Define *shadow zone*.
13. Why do shadow zones exist?
14. What happens to seismic waves as they travel through materials of differing rigidities?
15. Why don't S waves reach the S-wave shadow zone?
16. How does a P-wave shadow zone form?