

**TEST NAME: Credit Recovery - Waves (6.P.1.1)**  
**TEST ID: 699471**  
**GRADE: 06**  
**SUBJECT: Life and Physical Sciences**  
**TEST CATEGORY: My Classroom**

Student: \_\_\_\_\_

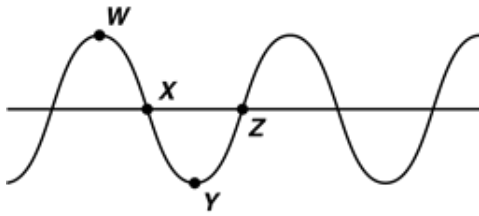
Class: \_\_\_\_\_

Date: \_\_\_\_\_

1. How are electromagnetic waves different from other waves?

- A. They have very short wavelengths.
- B. They transmit energy instead of matter.
- C. They can travel through a vacuum and through matter.
- D. They can change direction by reflection when they strike an object.

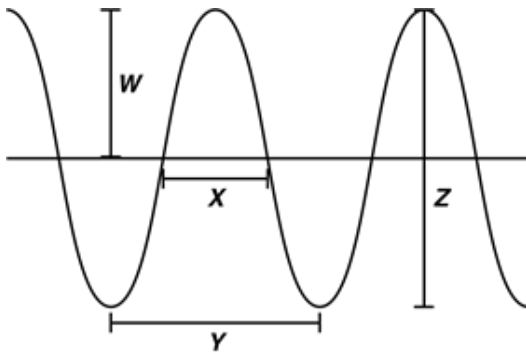
2. Look at this illustration of a wave.



Which points on the wave are the trough and the crest?

- A. Point W is a trough; Point Y is a crest.
- B. Point Y is a trough; Point W is a crest.
- C. Point Y is a trough; Point X is a crest.
- D. Point W is a trough; Point Z is a crest.

3. The illustration shows a transverse wave.



Which bar measures the wavelength of the wave?

- A. bar W
- B. bar X
- C. bar Y
- D. bar Z

4. What do waves carry through objects?

- A. sound
- B. light
- C. energy
- D. water

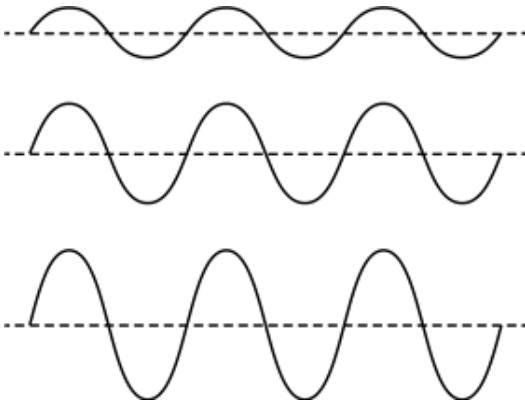
5. Which of these factors affects how fast a sound wave moves?

- A. the kind of material it is moving through
- B. the amplitude of the sound wave's vibrations
- C. the wavelength of the disturbance in the medium
- D. the type of motion that caused the sound wave to form

6. What causes a seismic wave?

- A. sudden breaking of rock as it releases potential energy
- B. very loud sound waves from the atmosphere entering the ground
- C. growing pressure on rocks from the weight of material above them
- D. energy transferred into Earth from the Sun as electromagnetic waves

7. This illustration shows three different waves traveling through the same medium.



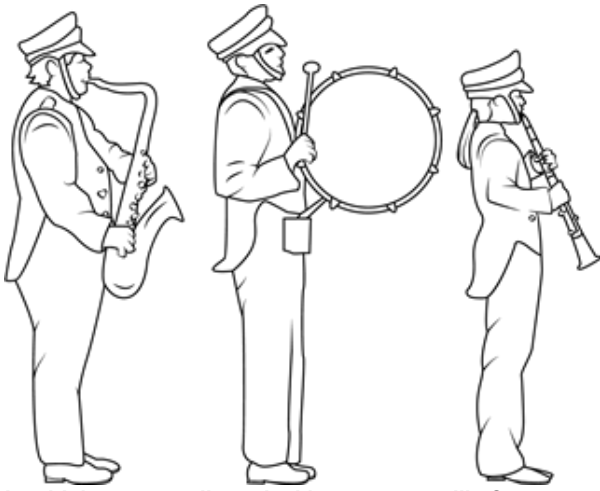
How do the waves differ from one another?

- A. The waves travel at different speeds.
- B. The waves have different wavelengths.
- C. The waves carry different amounts of energy.
- D. The waves are a different distance from the source.

8. Which statement correctly describes how a sound wave travels through air?

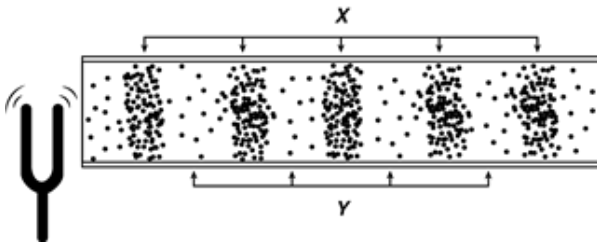
- A. The wave carries molecules of air away from the source of the sound.
- B. The wave carries energy that causes molecules to move back and forth.
- C. The wave carries a molecule in one direction until it collides with another molecule.
- D. The wave moves through the air and gains energy from the moving molecules that it touches.

9. A band has many different musical instruments. Each instrument is played differently.



In which way are all musical instruments alike?

- A. They all use a vibration to make sound waves.
  - B. They all send sound waves in only one direction.
  - C. They all make sound waves with the same amplitude.
  - D. They all make sound waves when two objects strike one another.
10. Tectonic activity causes potential energy to build up in the crust. An earthquake occurs when this potential energy is released within the crust. Which statement best describes what happens when the energy is released?
- A. It generates seismic waves that spread out in all directions around Earth.
  - B. It generates heat waves that affect climate changes around Earth.
  - C. It generates changes in the magnetic field of Earth.
  - D. It generates changes in the orbiting speed of Earth.
11. This illustration shows a sound wave traveling from a tuning fork through a medium.



What parts of the wave are labeled X and Y?

- A. X represents the compressions; Y represents the rarefactions.
- B. X represents the rarefactions; Y represents the compressions.
- C. X represents the compressions; Y represents the wavelength.
- D. X represents the rarefactions; Y represents the wavelength.

