

Name _____

Waves Interactions Book Work

Date _____ Per. _____

Circle the letter of the best answer for each question.

1. What happens to a wave when it is reflected?
 - a. The wave passes through a medium.
 - b. The wave is radiated
 - c. The wave is transmitted.
 - d. The wave bounces back after hitting a barrier.
2. What is a reflected sound wave called?
 - a. echo
 - b. transmittal
 - c. return
 - d. interaction
3. What happens to a wave when it is refracted?
 - a. The wave is transmitted through one medium.
 - b. The wave is radiated.
 - c. The wave bends as it passes between two media.
 - d. The wave is reflected.
4. What happens to light when it is dispersed?
 - a. Light becomes concentrated.
 - b. Light spreads out.
 - c. Light becomes an echo.
 - d. Light is transmitted.
5. What do you see when sunlight is refracted through water droplets?
 - a. wavelength
 - b. rainbow
 - c. reflection
 - d. light
6. What happens to a wave when it is diffracted?
 - a. The wave changes direction when it finds a barrier or an opening.
 - b. The wave is dispersed.
 - c. The wave speeds up.
 - d. The wave continues to travel in a straight line.
7. Why do sound waves travel around corners better than light waves do?
 - a. Sound waves have longer wavelengths than light waves do.
 - b. Light waves have longer wavelengths than sound waves do.
 - c. Light waves don't bend.
 - d. Sound waves are more flexible.

Read the words in the box. Read the sentences. Fill in each blank with the word or phrase that best completes the sentence.

standing	interference	constructive
resonant	destructive	resonance

8. The frequencies at which standing waves are made are called _____ frequencies.
9. When the crest of one wave overlaps the trough of another wave, it is called _____ interference.
10. The results of two or more waves overlapping is called _____.
11. When the crests of one wave overlap the crests of another wave, it is called _____ interference.
12. Certain parts of the wave are always in the rest position in a(n) _____ wave.
13. When two objects vibrate at the same frequency, and one causes the other to vibrate, it is called _____.

Matching:

14. _____ bending of a wave as it passes between two substances a. reflection
15. _____ change in the direction of a wave when it finds a barrier b. refraction
16. _____ when a wave bounces back after hitting a barrier c. diffraction
17. _____ the combination of two or more waves that result in a single wave d. interference