

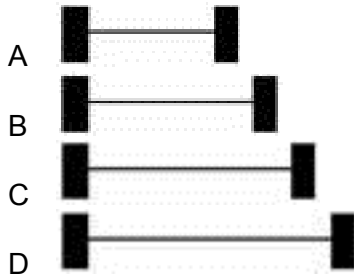
Name: _____

Date: _____ Class: _____

Energy: Properties of Waves

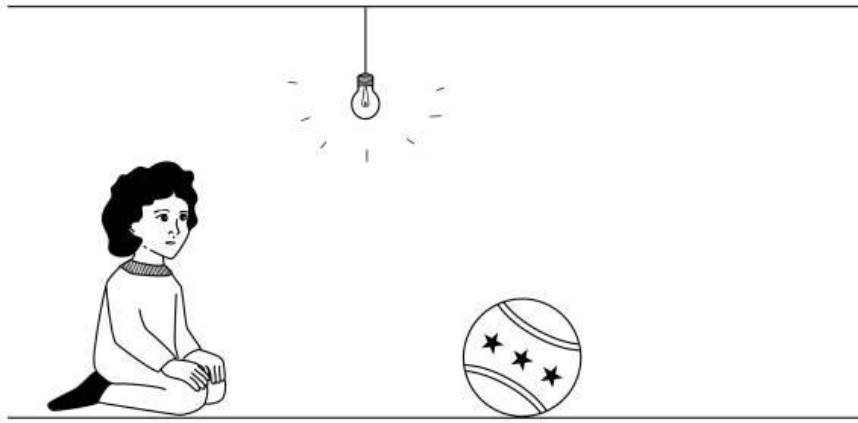
1. A person produces two sound waves with a flute, one immediately after the other. Both sound waves have the same pitch, but the second one is louder. Which of the following properties is greater for the second sound wave? (6.P.1.3)
- A Frequency
 - B Amplitude
 - C Wavelength
 - D Speed in air

2. A wire is cut into four pieces of different lengths. Each piece is stretched between two supports to the same tightness. Which of the pieces, shown below, would give the highest pitch if it were plucked in the middle? (6.P.1.3)



3. Why does the leaf of a plant look green? (6.P.1.2)
- A Because it absorbs green light
 - B Because it reflects green light
 - C Because it absorbs only yellow and blue light
 - D Because it reflects a mixture of yellow and blue light
4. What do playing a guitar, banging a drum, and dropping a pebble in the water have in common? (6.P.1.1)
- A They all produce light.
 - B They all cause vibrations.
 - C They all convert heat to energy.
 - D They all need gravity to move.

5.

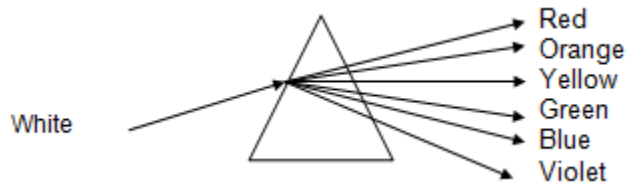


In the figure above, which of the following is the pathway of light that allows the child to see the ball? (6.P.1.2)

- A Light bulb → child's eyes → ball
 - B Child's eyes → light bulb → ball
 - C Ball → light bulb → child's eyes
 - D Light bulb → ball → child's eyes
6. Sound waves, water waves, and light waves are all alike in that they all _____.
(6.P.1.1)
- A. Move energy from one place to another
 - B. Move at the same speed
 - C. Move without vibrating
 - D. Move the fastest in water
7. What is the distance between two consecutive points in phase on a wave called? (6.P.1.1)
- A. Frequency
 - B. Period
 - C. Amplitude
 - D. Wavelength
8. Which statement best explains why thunder is heard after lightning is seen? (6.P.1.1)
- A. Light travels faster than sound
 - B. Light travels slower than sound
 - C. Thunder is produced by the impact of lightning against the ground
 - D. The eye works faster than the ear
9. Regions in a sound wave where particles are farthest apart are called _____.
(6.P.1.1)
- A. Compressions
 - B. Condensations
 - C. Depressions
 - D. Rarefactions

10. Which situation would cause your pupils to change from small to large? (6.P.1.2)
- A. The light got dimmer
 - B. The light got brighter
 - C. The person looked at a distant object
 - D. The person looked at a closer object
11. Light is bent as it passes from the air into the lens of eyeglasses. This bending is called _____ . (6.P.1.2)
- A. Reflection
 - B. Refraction
 - C. Interference
 - D. Shifting
12. Different wavelengths of light are seen as different _____. (6.P.1.2)
- A. Atoms
 - B. Sounds
 - C. Colors
 - D. Speeds
13. In which medium would sound move the fastest? (6.P.1.3)
- A. Vacuum
 - B. Air
 - C. Water
 - D. Steel
14. The human ear receives sound waves as _____ and converts them to signals that are processed by the brain. (6.P.1.3)
- A. Electricity
 - B. Pitch
 - C. Vibrations
 - D. Light
15. A person becomes deaf due to a part of the ear that sends signals to the brain becoming damaged. What part of the ear would this be? (6.P.1.3)
- A. Drum
 - B. Cochlea
 - C. Ossicles
 - D. Ear Canal
16. Selena stretches a rubber band across a box and lets it go. What is produced? (6.P.1.1)
- A. Electrical energy
 - B. Magnetic energy
 - C. Sound waves
 - D. Light waves

17. Use the following diagram to answer the question below:



Walker uses a prism and makes this drawing of his observations. Which best explains the observation. (6.P.1.2)

- A. Each color of light bends at a different angle.
- B. Each color of light bends at the same angle.
- C. White light is made of one wavelength of light.
- D. White light is reflected by the prism.

18. Which of the following diagrams have the highest frequency? (6.P.1.1)



19. How can you classify energy according to its waves? (6.P.1.1)

- A. According to the waves' frequency, amplitude, and loudness.
- B. According to the waves' wavelength.
- C. According to the waves' crest and trough.
- D. According to its sound.

20. A tone that is lower in pitch is lower in what characteristic? (6.P.1.3)

- A. frequency
- B. wavelength
- C. loudness
- D. resonance