

Name: _____ Date: _____

The Secret Language of Whales and Fireflies: Pre-K Light and Sound

Little scientists investigate how vibrations travel through deep water and how glowing bugs use light signals to talk across a dark field.

1. If a whale sings at the bottom of the ocean, but a boat makes a very loud 'honk' nearby, why might the baby whale be confused?

- A. The whale can't see the boat
- B. The boat's sound waves mix with the whale's waves
- C. The water is too cold for sound
- D. The sun is too bright

2. A firefly uses a tiny light to talk to friends. If we put a thick, black box over the firefly, its friends can still see its message.

- A. True
- B. False

3. When you shout into a deep canyon and hear your voice come back a second later, the sound wave is _____ off the rock wall.

- A. disappearing
- B. melting
- C. bouncing
- D. sleeping

4. Imagine you are in a dark room with a flashlight. If you point it at a shiny silver tray, where will the light go?

- A. It will go inside the tray and stay there
- B. It will turn into a sound wave
- C. It will jump back toward you or the wall
- D. The light will turn off automatically

5. If you tap a drum very softly, the sound wave is small and the noise is quiet. If you hit it very hard, the wave has more _____.

- A. energy
- B. colors
- C. water
- D. shoes

6. Space is very quiet because there is no air for sound waves to wiggle through.

- A. True
- B. False

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7. Why does a straw in a glass of water sometimes look like it is broken or bent into two pieces?

- A. The water is too heavy for the straw
- B. The light slows down and bends in the water
- C. The glass is broken
- D. Sound is pushing the straw

8. A honeybee flaps its wings very fast to make a high buzz. If the bee flaps slower, the _____ of the sound changes.

- A. brightness
- B. pitch
- C. smell
- D. weight

9. Light can travel through the empty, dark parts of outer space where there is no air.

- A. True
- B. False

10. If you want to hide from a flashlight beam, which object would be the best to hide behind?

- A. A clear glass window
- B. A piece of plastic wrap
- C. A thick wooden door
- D. A bubble