

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

## Sonic the Hedgehog's Super Speed Sound & Light Lab for Kindergarten

Young scientists analyze shadowy secrets and mysterious vibrations, moving beyond surface observations to evaluate how energy interacts with different materials.

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**1. If you put a thick, heavy blanket over a ringing bell, what is the most likely reason the sound changes?**

- A. The blanket traps the vibrations so they can't reach your ears.
- B. The bell gets scared and stops moving.
- C. The blanket makes the sound waves travel faster.
- D. The air inside the bell disappears.

**2. A shadow will look exactly the same if you use a clear glass window instead of a solid wooden door.**

- A. True
- B. False

**3. Imagine you are in a dark room with a flashlight. To make a shadow of a toy look much BIGGER on the wall, you should move the toy \_\_\_\_\_.**

- A. closer to the flashlight
- B. closer to the wall
- C. into a different room
- D. behind the flashlight

**4. You tap a glass of water with a spoon. Then, you fill the glass with more water and tap it again. Why does the sound change?**

- A. The spoon gets heavier.
- B. The water changes color.
- C. More water makes the glass vibrate slower, changing the pitch.
- D. The light in the room hits the water.

**5. If you are in a room that is perfectly pitch black with no light at all, you can still see your favorite colorful toy if you wait long enough.**

- A. True
- B. False

**6. When you shout into a long, empty tunnel and hear your own voice come back to you, this is called an \_\_\_\_\_.**

- A. Elephant
- B. Echo
- C. Engine
- D. Eagle

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**7. Why does a straw look 'broken' or bent when you put it in a glass of water?**

- A. The water is too heavy for the straw.
- B. The light bends when it moves from air into water.
- C. The straw actually breaks when it gets wet.
- D. The cup is magnifying the straw.

**8. To communicate with a friend across a very noisy playground without using your voice, you could use a \_\_\_\_\_ to send a light signal.**

- A. Mirror
- B. Crayon
- C. Pillow
- D. Rock

**9. Sound waves can travel through a solid wooden table.**

- A. True
- B. False

**10. If you want to make a drum have a very QUIET sound, which action should you take?**

- A. Hit the drum with a heavy hammer.
- B. Tap the drum very gently with one finger.
- C. Jump on top of the drum.
- D. Scream at the drum.