

Nova's Noisy Science Quiz: All About Sound

Learning objective: To identify how sounds are made, recognize that vibrations travel through a medium to the ear, and understand the relationship between pitch and volume.

Join Nova the owl as she explores the world of sound! Read each question carefully and write your answers clearly. Good luck!

Answer Key: 1. A (vibrations), 2. True, 3. True, 4. B (vibrations get smaller), 5. High, 6. C (in a vacuum), 7. False, 8. True, 9. A (a solid), 10. B (liquid).

Word bank: vibrations · pitch · volume · medium · solid · liquid · gas · ear · high · low

1. 1. What do we call the back-and-forth movements that create sound? A) vibrations*, B) reflections, C) echoes, D) light beams (1 mark)

2. 2. True or False: Sound can travel through air. (1 mark)

3. 3. True or False: A sound with a high frequency has a high pitch. (1 mark)

4. 4. Why does a sound get quieter as you move further away? A) The air gets cold, B) The vibrations get smaller*, C) The sound gets tired, D) The pitch changes (1 mark)

5. 5. If you pluck a very short, thin guitar string, will the pitch be high or low? (1 mark)

6. 6. Through which of these can sound NOT travel? A) Water, B) Wood, C) A vacuum (empty space)*, D) Air (1 mark)

7. 7. True or False: Sound travels faster through air than it does through solid metal. (1 mark)

8. 8. True or False: Our ears help us detect vibrations in the air. (1 mark)

9. 9. Which material would carry sound the best? A) A solid*, B) A gas, C) A cloud, D) A vacuum (1 mark)

10. 10. Which of these is a state of matter that sound can travel through? A) A dream, B) A liquid*, C) A shadow, D) A thought (1 mark)

Draw: Draw a diagram showing how sound travels from a ringing bell to a child's ear. Use arrows to show the direction of the vibrations.



Extension challenge: Nova wants to know: If you tap a glass of water, what happens to the pitch if you add more water to the glass? Write a sentence explaining your prediction.