

Nova's Night-Time Sound Safari

Learning objective: To identify how sound is made, how it travels, and how we hear, meeting the Year 6 Science curriculum requirements.

Help Nova the owl explore the science of sound! Read each question carefully and circle the best answer. Remember, sound is all about vibrations.

Answer Key: 1. B (vibrations), 2. True, 3. True, 4. C (a solid), 5. B (pitch), 6. False (sound cannot travel through a vacuum), 7. Eardrum, 8. A (decreases), 9. Frequency, 10. True.

Word bank: vibration · medium · pitch · volume · decibel · frequency · ear canal · eardrum · solid · vacuum

1. 1. What causes a sound to be created? A) Light waves, B) Vibrations*, C) Static electricity, D) Magnetic force (1 mark)

2. 2. True or False: Sound travels as a wave through a medium like air, water, or wood. (1 mark)

3. 3. True or False: The faster an object vibrates, the higher the pitch of the sound produced. (1 mark)

4. 4. Through which of these does sound travel the fastest? A) Air, B) Water, C) A solid wood table*, D) A gas (1 mark)

5. 5. If a sound is 'low-pitched', it has a: A) High frequency, B) Low frequency*, C) Faster vibration, D) Louder volume (1 mark)

6. 6. True or False: Sound can travel through outer space where there is a vacuum. (1 mark)

7. 7. What part of the human ear vibrates when sound waves hit it? (1 word answer) (1 mark)

8. 8. What happens to the volume of a sound as you move further away from the source? A) It decreases*, B) It increases, C) It stays the same, D) It changes pitch (1 mark)

9. 9. What is the scientific term for the number of vibrations per second? (1 word answer) (1 mark)

10. 10. True or False: Sound is a form of energy. (1 mark)

Draw: Draw a diagram showing a sound wave travelling from a ringing bell to Nova the owl's ear. Label the 'vibration' and the 'ear canal'.



Extension challenge: Max the monkey is playing a set of drums. Explain why the smaller drums make a higher-pitched sound than the larger drums, using what you know about vibration speed.