

Nova's Sound Investigation Lab

Learning objective: To identify how sounds are made, associating some of them with something vibrating, and to describe how sound travels from a source to our ears.

Join Nova the barn owl in her night-time sound lab! Choose an object in your classroom or at home that makes a sound. Use this experiment record to explore how that object creates noise and how you hear it. Remember to be a careful observer, just like Nova!

Word bank: vibration · sound waves · source · ear canal · pitch · travel · volume

1. The Sound Source: What object have you chosen to investigate? Describe what you do to the object to make it produce a sound. (2 marks)

2. The Vibration Station: Carefully touch the object while it is making a sound. Can you feel any movement? Describe the vibrations you feel. (3 marks)

3. Sound Travel: Imagine the sound waves travelling from your object to your ears. How do you think the sound moves through the air? (3 marks)

4. Changing the Sound: How could you change the volume (make it louder or quieter) or the pitch (make it higher or lower) of your object? (4 marks)

5. Conclusion: Nova needs to know your findings. Summarise in one sentence why your object stopped making a sound when it stopped vibrating. (2 marks)

Extension challenge: Research how different musical instruments make sound. Can you group them into three categories based on how they create vibrations (e.g., string, percussion, or wind)?