

Nova's Sound Investigation: How Sounds Travel

Learning objective: To identify how sounds are made, associating some of them with something vibrating, and recognize that vibrations from sounds travel through a medium to the ear.

Nova the owl is studying the forest sounds. Read the sentences below and decide if they are True or False. If you think a statement is False, use the space provided to explain why, using the correct science terms from the word bank.

Word bank: vibration · medium · particles · ear canal · eardrum · sound wave

1. 1. Sound is created when an object stays perfectly still and does not move. (True/False?) Explain your answer. (2 marks)

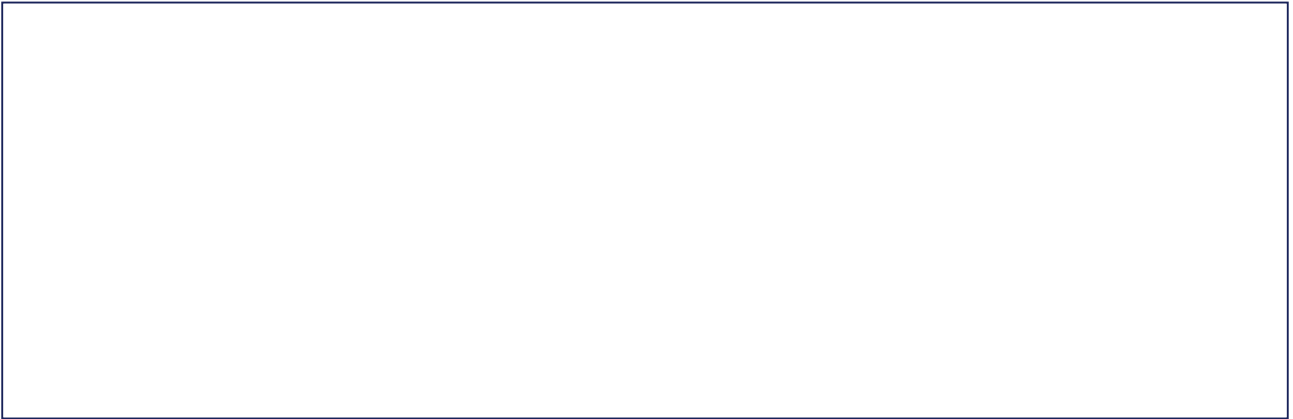
2. 2. Sound can travel through a vacuum (a space with no air or particles). (True/False?) Explain your answer. (2 marks)

3. 3. When you play a guitar, the string moves back and forth very quickly. This movement is called a vibration. (True/False?) Explain your answer. (2 marks)

4. 4. Sound travels through the air by passing energy from one particle to the next. (True/False?) Explain your answer. (2 marks)

5. 5. Your eardrum stops vibrating when sound reaches it. (True/False?) Explain your answer. (2 marks)

Draw: Draw a diagram showing a drum being hit. Use arrows to show the 'vibration' moving away from the drum skin and traveling through the air towards an ear.



Extension challenge: Nova wants to know if sound travels better through solids, liquids, or gases. Research how sound travels through a table compared to the air and write a short paragraph explaining your findings.