

# The Science of Soothing: Using Sounds to Find Calm

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

## Part 1: Sound Basics

1. What is sound? Describe how sound waves travel through the air.

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2. Define three key features of a sound wave.

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## Part 2: Sounds and the Brain

3. Where are sound vibrations detected in the human ear?

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4. How does the brain process sound waves to help us hear?

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## Part 3: Observing Soothing Sounds

5. In the video clip of a baby being soothed by a caregiver, what specific sounds seem to calm the baby most?

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6. What did you notice about the volume, pitch, and tempo of these soothing sounds?

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## Part 4: Scientific Inquiry

7. Why do you think some sounds are more calming to babies than others? Support your answer with scientific reasoning.

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8. Imagine you are designing a device to help babies sleep better. What features would you include based on what you've learned about soothing sounds?

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9. How does the body physically respond to calming sounds (think about heartbeat, breathing, etc.)?

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## Part 5: Application and Reflection

10. Think about a time when sound helped you become calm or focused. What kind of sound was it, and how did it make you feel?

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11. Why do you think some people prefer nature sounds (like rain or ocean waves) while others prefer music or white noise to relax?.

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