

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

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

# Vibrations

Sound is energy we can hear. As you saw in your previous sound experiment, sound is associated with vibrations. When something vibrates, it moves back and forth quickly. It is this motion that creates sound.

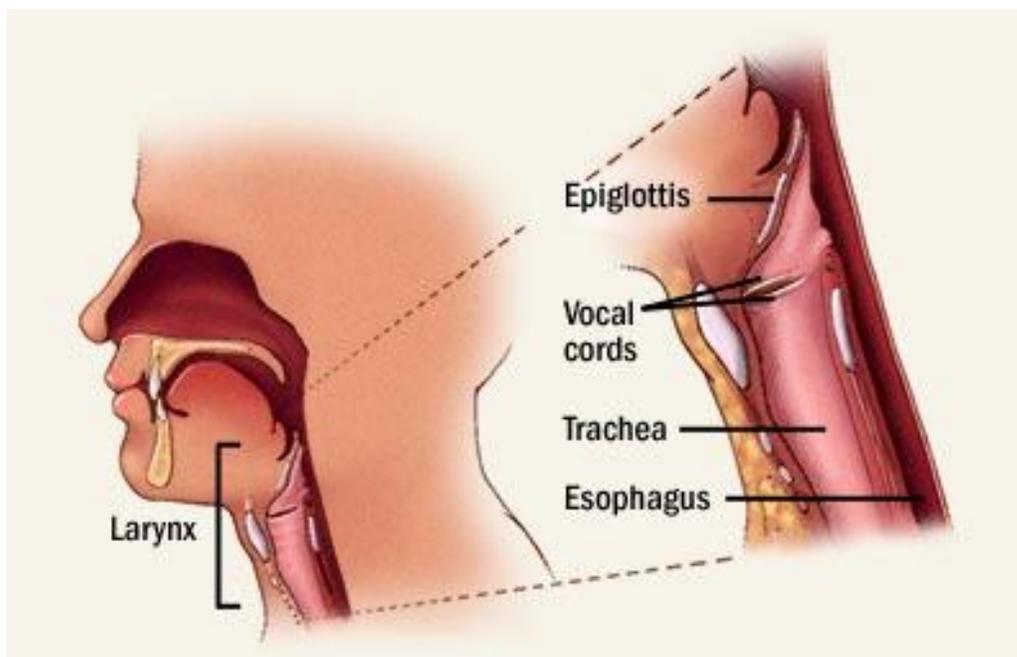
Have you ever tossed a rock into a still pond? When the rock hits, the waves move outward from the point where the rock landed. The waves start out big and get smaller as they move away. Sound travels in waves too, just like the water, and just like light does. The waves originate from the vibrating object.

## Your Larynx

As humans, most of us are able to speak, but we do not seem to be vibrating. This is because vibrations do not need to be large to cause sound.

Your voice begins in your larynx, or “voice box.” That is where your vocal cords are located. When you push air up from your lungs, it moves through your voice box, which causes your vocal cords to vibrate. This vibration makes sound. Depending on how you push the air, and how you hold your mouth, you can make many different sounds.

To locate your voice box and vocal cords, gently touch the front of your neck, near the middle of your throat. Start humming, what do you feel? Your vocal cords are vibrating, causing sound.



1. What causes sound? How does sound travel?

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2. Describe how a human can speak (make noise)?

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3. How do you think the wave from a loud sound compares to the wave from a soft sound?

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4. Choose 2 common sounds you hear almost every day. Describe, in detail, what causes the sound.

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5. Based on what you have learned, try to explain how a guitar works.

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