



VIBRANT CORDS

KEY CONCEPTS

Sounds are produced by vibrations.

Vocal cords within our throats vibrate, producing sounds.

Vocal cords are made from a protein called elastin, which allows them to move and stretch like a rubber band.

We tighten or relax our vocal cords to produce high or low sounds.

LEARNING OBJECTIVES

Feel the vibrations produced by vocal cords.

Experience the variety of pitches produced when vocal cords are stretched and relaxed.

KEYWORDS: Vibration, pitch, vocal cords

PROCEDURES

Have participants place one hand on their throat and open their mouth without saying anything. Does anyone feel anything happening in their throat?

Now have them say "Ah-h-h-h-h," moderately loudly. Have them stop, then say "Ah-h-h-h-h" again. Now have them say a word, such as "hello." What do they feel in their throat now?

In our throat, we have two sets of cords that lie close to and crosswise of each other. (Illustrate this by holding the first two fingers of each hand crosswise of each other in front of you.) When the lower set of cords vibrate, we make vocal sounds.

Vocal cords are made of a protein called **elastin**. Does the word **elastin** remind you of

Topic: Sound

another word that describes something that stretches? That's right, elastic! And, just like elastic, our vocal cords can stretch to become tight, then relax.

Try to make a variety of sounds using your vocal cords. Can you feel a difference? Explain.

Make a low pitched "Ah-h-h-h" sound. Now make a high pitched "Ah-h-h-h" sound. Can you feel a difference in the muscles in your throat. Have someone describe the difference. When we tighten our vocal cords, we get high pitched sounds, when we relax, or lengthen, our vocal cords, we get lower pitched sounds.

Ask participants what happens to our voice when we get uptight about something? Does our voice sound low and relaxed, or high and strained? Give an exaggerated example of a low, relaxed voice and a high, tensed voice. What is happening to our vocal cords when our body tenses up?

Use the harp lute, or kora, to demonstrate how tightening the strings makes the pitch higher.