Music Lab (continued)

Think About It

When you blow into the popsicle sticks, you make the large rubber band vibrate, and that vibration produces sound. Long, massive objects vibrate slowly and produce low-pitched sounds; shorter, less-massive objects vibrate quickly and produce high-pitched sounds. The tension of a rubber band will also change its pitch. Higher tensions lead to higher-pitched resonances. When you move the straws closer together, you shorten the part of the rubber band that can vibrate, so the pitch gets higher than the original sound. You may also have played with this effect if you've ever stretched a blade of grass between your fingers and blown on it to make the grass vibrate and buzz. Like the rubber band in the harmonica, your vocal cords also vibrate when you speak or sing. The more tension they're under, the faster they vibrate and the higher the sound they make.