



Good Sound Vibrations

Make a Kazoo or Harmonica



How does a Kazoo make sounds?

When you breathe between the craft sticks, your breath vibrates the two pieces of wax paper. The two pieces of wax paper are like lips inside a voice box made up of the craft sticks.

The craft sticks then vibrate at a frequency that is naturally resonant with the wax paper vibrates. The craft sticks produce a sound similar to a musical instrument like violin or a clarinet.

The wood is the sound box that produces the sound waves that travel to your ears at 344 meters per second.



Materials:

1. 2 Craft sticks
2. 2 Rubber bands
3. 2 toothpicks
4. Wax paper
5. Scissors



Instructions

1. Cut 2 strips of wax paper the length of the craft sticks and a width slight less than the width of the sticks.
2. Place the 2 strips of wax paper on top of each other and in between the two craftsticks.
3. Fasten the ends of the craftstick/wax paper sandwich on both ends with rubber bands.
4. Push a toothpick between the craftstick just next to the rubber band per the illustration.
5. Experiment with the placement of the toothpicks. Either both on top or under both wax paper strips, both between, or one on top or under and one between.
6. Move the toothpicks either nearer or farther from each other to test the sound differences.
7. Push more less on the top of the kazoo to test sound differences.



Questions

1. Would the sound change if the craft sticks were wider?
2. Would the sound change if the toothpicks are closer together?
3. Would the sound be different if the craft sticks are wet?