

## Popsicle Stick Harmonica

*Build a Harmonica with household materials*

**Recommended Grade Level:**  
5<sup>th</sup>- 8<sup>th</sup> grade

**NGSS Science & Engineering Practices:**

- Asking questions and defining problems
- Planning and carrying out investigations
- Designing solutions
- Obtaining, evaluating, and communicating information

**Time:** 10 minutes prep, 15 minutes activity

**Materials Needed:**

- 2 popsicle sticks
- 1 big rubber band
- 2 smaller rubber bands
- masking tape



**Background Information:**

The blowing air makes the rubber band and sticks vibrate, and that vibration makes the sound.

**To Do and Notice:**

1. Wrap masking tape about 10 times around each end of the two sticks.
2. Stretch the longer rubber band around the length of one of the sticks.
3. Place the other stick on top and secure the ends by wrapping the shorter bands around each end.
4. Blow through the middle and make a beautiful sound.

**What's Going On?**

As you blow across the rubber band it vibrates. The vibrating rubber band causes the sticks and surrounding air to vibrate; that vibration is translated through the air to our ears.



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**Going Further:**

Try different sized “big” rubber bands. Try covering your ears, can you still hear it?

