



Virtual STEAM

Science

Musical Vibration Challenge

Goal: I can make music with vibrations.

Science Indicator: SC.1.2.1.A Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate

Instructions:

Materials:

- 2 - Large Craft Sticks
- 1 - Wide Rubber Band
- 2 - Small rubber bands
- 1 - Cardstock
- 4 Address Labels / Tape
- Scissors (not included)
- Ruler (not included)



1. Watch YouTube Video for background knowledge:
https://www.youtube.com/watch?v=_jF-4QRoQ7U
2. On a sheet of paper, draw and label your harmonica.
3. Wrap the wide rubber band around one craft stick from end to end once.
4. Cut two 2"x2" pieces of cardstock.
5. Fold the cardstock pieces in half 3 times.
6. Roll tape in a loop and attach to one side of each piece of cardstock.
7. Stick both pieces of cardstock to a different end of the craft stick without the rubber band.
8. Place the craft stick with a rubber band on top of the other craft stick. Wrap small rubber bands around each end of the craft sticks to hold them together.

Book Extension:

[How Does Sound Change? \(Light and Sound Waves Close-Up\) by Robin Johnson](#)

[Sounds All Around \(Let's-Read-and-Find-Out Science 1\)](#)





9. Place harmonica in mouth and blow.
10. If unsuccessful, move your mouth around until you hear sounds from the vibrations.
11. Document the challenge using video, photos, drawings, etc.
12. Have fun!

Extension Activity:

- What three things must you have to create a sound?
- Will the pitch change if you use smaller popsicle sticks? Does the pitch go higher or lower than the harmonica with the larger popsicle sticks?

Ignite Our Future Connection:

- **Positivity** - is looking towards the good side of things, having a good attitude. Lessons include training our brains to be more positive so we can always look at the bright side of life.

