



A fun, cross-curricular activity linking music, craft and STEM, and introducing sound as a vibration.

### Curriculum links

- **KS1:** Working Scientifically, Everyday materials, Music.
- **KS2:** Working scientifically, Uses and properties of everyday materials, Sound, Music.

### Learning outcomes:

- Identify how sounds are made, associating them with something vibrating.
- Experiment with sounds and understand and explore how music is created.
- Use materials creatively.

**Before the activity** you can introduce the idea of sound as a vibration by asking the children to place a hand gently on their neck over the voice box and sing AH. They will feel the vibrations made by their voice boxes. Other demonstrations about sound and vibrations can be found here:

[www.mwmresearchgroup.org/the-science-of-musical-instruments.html](http://www.mwmresearchgroup.org/the-science-of-musical-instruments.html)



### You will need

- Assorted cardboard tubes (available from educational suppliers)
- Greaseproof paper
- Foil/tissue paper/cellophane
- Scissors
- Pens/paints/coloured paper/glue for decorating
- Rubber bands

### Safety

- Teachers should conduct their own risk assessment for this activity.
- We recommend that an adult helps with making the holes in the kazoo.
- Latex-free rubber bands are available.
- Kazoos must not be swapped or shared.

**Activity:** We can use what we know about sound to make a kazoo to amplify the sound from our voice box.

- Instructions for children are on the next page.
- Adult help is needed to poke a hole in the tube about 5 cm from one end.
- Cover one end with a square of waxed paper and secure in place with elastic band
- Test your kazoo: **Hum** loudly into the open end. Lightly touch the paper. *Can you feel it vibrating?*
- Decorate your kazoo!
- Extensions: experiment with
  - Different membrane materials (foil, plastic, ordinary paper) – *how does the sound change?*
  - Playing from different ends – *where does the sound come out? Where do you feel the vibrations?*
  - Different numbers of holes - covering the holes.
- Kazoo orchestra! Play a song together.



1. Take a cardboard tube.

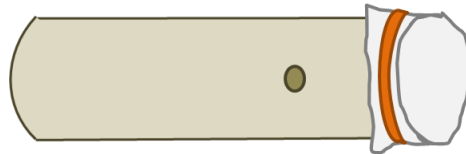


2. Ask an adult to make a hole about 5 cm from the end of the tube.



3. Cut a square of waxed paper that is about twice as wide as the end of the tube.

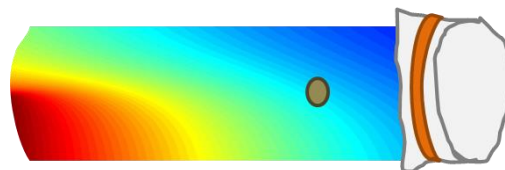
4. Wrap the paper around the end of the tube nearest the hole. Secure it with a rubber band.



5. Try it! Hold the open end of the kazoo lightly against your mouth and hum loudly.

- Try making different noises. Can you hum a tune?
- Gently touch the waxed paper as you hum. What can you feel?
- Try covering the hole with your finger. Does it make it easier or more difficult to play?

6. Decorate your kazoo!



7. Experiment with different materials to cover the end instead of the waxed paper.