

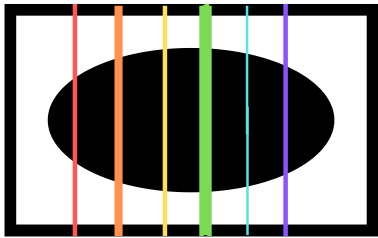


## THUMB BANJO

Make your own miniature banjo with items from your house.

### Materials

- 4 rubber bands
- Empty tissue box or a plastic bowl



Note: Make sure the rubber bands can fit tightly around the box without breaking.

### Procedure

- Stretch the rubber bands around the box so they are taut.
- Arrange the rubber bands over the opening of the box so they are parallel to one another but not touching each other.
- Pluck each rubber band with your finger and listen to the sound it makes.
- Try out different sized rubber bands. Do thicker and thinner rubber bands make different sounds? Does the sound change if the rubber band is stretched tighter?

### Results

The rubber bands vibrate when plucked, creating sound.

### Why?

The rubber bands act like guitar strings when they're stretched tight, vibrating back and forth to make sound. Thicker rubber bands make lower tones than thinner ones because there is more solid material for the vibration to travel through. Rubber bands that are stretched more tightly will create louder sounds than loose rubber bands because they vibrate more. The box or bowl also acts as an amplifier, bouncing the vibrations back towards you.