

CURIOSITY AT HOME

RUBBER BAND BOX GUITAR



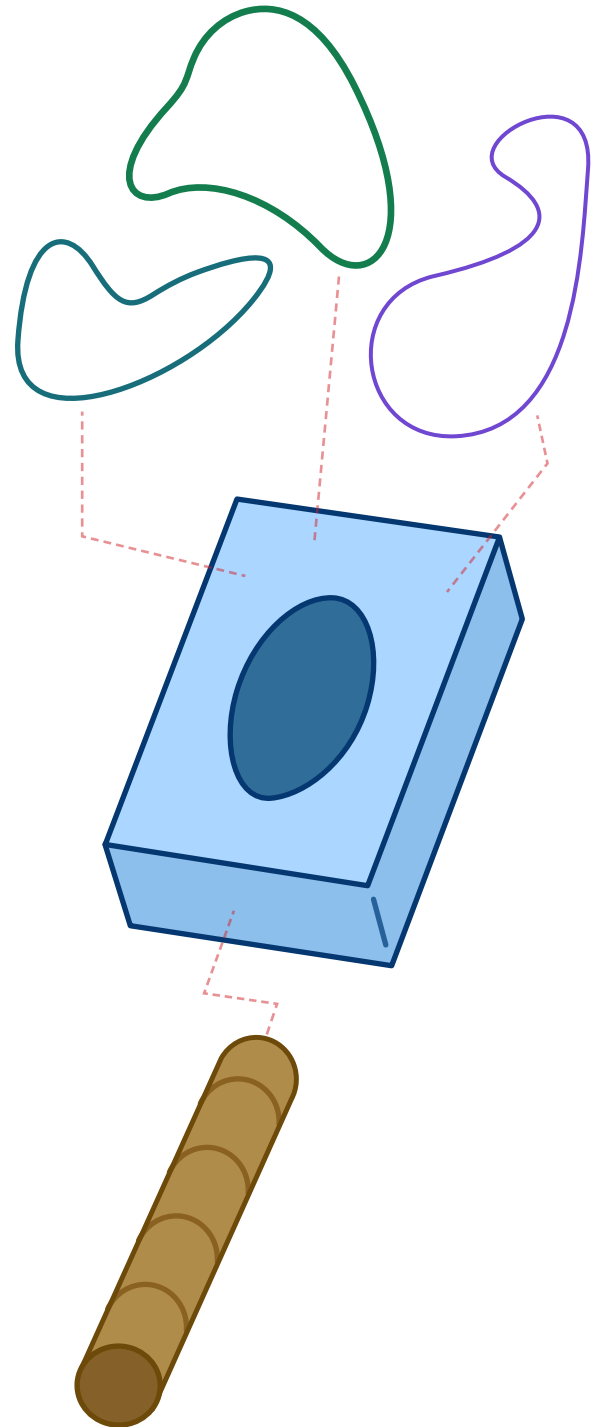
Playing music is a fun and creative way to express ourselves and important to our overall development. You can make your own rubber band box guitar using just a few common materials.

MATERIALS

- Empty rectangular tissue box
- Rubber bands of various thicknesses and lengths
- Tape
- Scissors
- Empty paper towel roll (optional)
- Clean empty food containers, such as coffee containers or soup cans (optional)
- Markers and decorations (optional)

PROCEDURE

- Remove any plastic left in the tissue box opening.
- Place the rubber bands around the tissue box so that they lay over the opening.
- (Optional to look more like a guitar) Cut one-inch slits around one end of the paper towel roll and fold out. Tape that end to one of the short sides of the tissue box to make a handle.
- (Optional) Use markers and decorations to customize your instrument.
- Strum away!



Show us how you're being curious! Share your results with us.

PACIFIC
SCIENCE
CENTER



CURIOSITY AT HOME

RUBBER BAND BOX GUITAR



EXPLORE MORE

Now try some of these variations to your musical instrument:

- Try making guitars with different materials, such as clean plastic food containers, coffee containers or thicker cardboard boxes.
- Try using rubber bands of different lengths and thicknesses.
- Cover the opening of your container. Make the opening smaller or bigger. Put openings in different areas.
- Place a pencil between the rubber bands and the container to form a bridge.
- Twist a toothpick or paperclip around the rubber bands to make them tighter.
- What do you notice about how the sounds change when you use these variations?

WHAT'S HAPPENING?

Just like a real guitar, the sound is made by the vibration of the rubber band that creates a sound wave. If you simply hold a rubber band between two fingers and strum it, the sound is very soft. Once we put the rubber band around the tissue box, the vibrations create a louder sound as the sound waves resonate, or bounce around, the inside of the box.



Show us how you're being curious! Share your results with us.

PACIFIC
SCIENCE
CENTER



CURIOSITY AT HOME

RUBBER BAND BOX GUITAR



3–5 GRADE EXPLORATION

- What did you notice about the sounds that each rubber band makes on your guitar? How does the sound of a thin rubber band compare to the sound of a wide rubber band?
- Pitch is how high or low a sound is. Can you order the rubber bands on your guitar in order from highest pitch to lowest pitch?
- Can you make guitars that sound very different?
- What other instruments can you make?
- Offer some of your instruments to family members and see if everyone can play together. Start a band and play for your neighbors!



Show us how you're being curious! Share your results with us.

PACIFIC
SCIENCE
CENTER

