Your challenge is to design and build a four-stringed instrument. Then you and a partner need to tune your instruments and play a song together.

I love music.

OK Design Squad! Get those rubber bands tuned up so we can start to shred!

There are lots of ways to go. Grab some paper. How many ideas can you come up with?

Loops or strips? Keep rubber bands as loops or cut them open into strips? Both ways work.

Box or lid? You can use either a box or a lid for your instrument.

Stringing the rubber bands. Will you run them across an open part of the box or across a solid part?
**DESIGN AND BUILD**

- **Attach your strings**
  - Wrap one end over a box edge and tape it. This way it pulls on the box, not just on the tape.
  - Stretch the other end to where you want it, and tape it.

- **Find 4 pitches you like**
  - Low pitch = Long, thick, or loose strings
  - High pitch = Short, thin, or tight strings

**TEST AND REDESIGN**

- **Free to move**
  How can you keep strings away from things that will stop them from vibrating, like the solid part of the box?

- **More vibrations = louder!**
  Get the string’s vibrations to go clearly from the strings to the box material. Too much tape, loose parts, or a bulky bridge will reduce the vibrations.

- **Music is important to almost everyone, so there will always be a demand for musicians, not to mention the instruments and sound equipment they need! Rock on!**

**SHARE**

Find a partner, tune both instruments, and play a song.

**PBS.** Watch **DESIGN SQUAD** on PBS or online at pbs.org/designsquad.