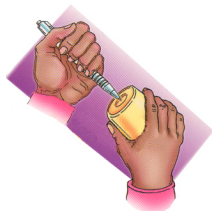




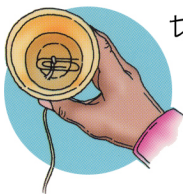
# Make Your Own Megacone Noise-Maker



## Here's how!

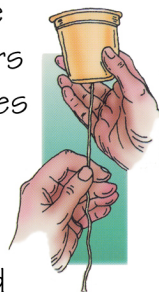
First, use a pen to punch a hole in the bottom of a plastic cup.

Second, tie the paperclip to the end of the string.



Thread the string through the hole in the cup.

Third, hold the megacone like this. Slide your fingers down the string. How does it sound? Slide your fingers down a plain string -- one without a megacone. Does it sound different? The megacone should be louder.



## Here's all you need

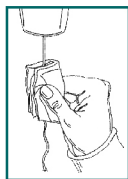
- sturdy cup, such as an empty yogurt cup
- ball-point pen
- paperclip
- string
- wet paper towel

## Want to improve your megacone?

### Here's what to do:

Hold a piece of wet paper towel. Then slide your fingers down. What a noise!

What else can you change to make the megacone louder? A cup that's bigger, smaller, deeper, or shorter? One that's paper or plastic?



Your fingers can make the string vibrate. That's what creates the sound. What kind of string would make the Megaphone louder? One that's longer, shorter, thicker, smoother, rougher?

### Here's more about sound:

Sound only happens when something vibrates (shakes). Touch your throat and speak. Feel the vibration? Vibrations travel faster through solids than through air. The megacone sound goes through lots of solids: a string, paper, hand, and cup.

The cup channels more sound into a smaller space. Plus, the sound travels in one general direction. More sound, all heading the same way, is louder. Loud sounds vibrate harder. Pluck a guitar string gently and it shakes back and forth just a bit. The sound is soft. Pluck harder, the string shakes more and the sound is louder.

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