

# USE A BALLOON AS A SOUND AMPLIFIER

Tapping your finger can make a big sound by using a balloon!

## YOU WILL NEED

- A balloon

## WHAT YOU DO

### Step 1

Blow the balloon up and tie a knot in the end.

### Step 2

Press the balloon lightly against your ear and tap the other side of the balloon



## THE SCIENCE BEHIND IT

The reason that we can hear sounds is that humans have three tiny little bones in each ear that can pick up vibrations.

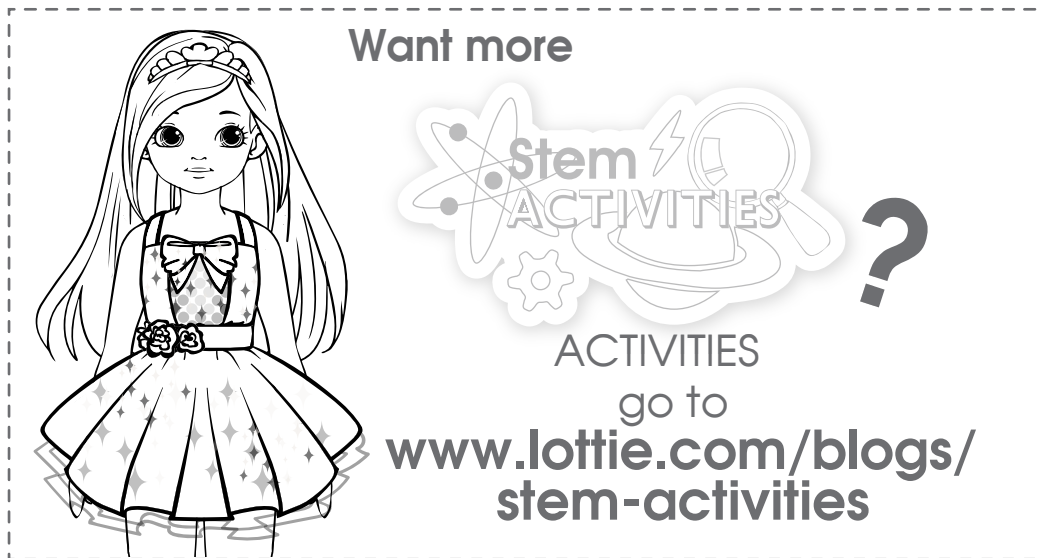
When a sound is made, for example when a speaker vibrates, the vibration is carried through the air by making the air molecules vibrate as a wave. These sound waves travel very fast (at the speed



of sound) all the way to your ear where the vibrations are passed onto the small bones in your ears, which then tell your brain what the sound is.

When you blow up the balloon, the balloon is trying to snap back to its original size and so it is squeezing the air molecules inside closer together than they are outside of the balloon. This means that they can carry the vibrations better than the air molecules outside the balloon, and so they make the bones in your ear vibrate more, making the tap sound louder!

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