



## SEEING SOUND

Demonstrate how you can see sound vibrations.

### Materials

- Empty tin can
- Cardboard
- Flashlight
- Can opener
- Balloon
- Glue
- ¼ inch piece of mirror
- Rubber bands

### Procedure

- Remove both ends from a clean, empty tin can. Cut the neck off a balloon and stretch the remaining bottom tightly over one end of the can. Hold it in place with rubber bands.
- Glue the small mirror onto the stretched balloon.
- Now shine the flashlight on the mirror at an angle, and place the cardboard so that it catches the reflection as a spot of light. Sing or shout into the open end of the tin.

### Results

When you sing or shout into the open end of the can, the reflected spot of light will vibrate quickly back and forth.



### Why?

Sound is made up of vibrations. These vibrations travel through the air by being passed from one air molecule to the next. When the vibrations pass through the balloon, it causes the mirror and reflected light to shake. A telephone receiver works in a similar way, it turns the vibrations of your voice into electrical signals just like how the stretched balloon and mirror changed the sound into moving light.