

Making music

Find out how making vibrations in the air produces musical sounds.

137 Make some bottle pipes



1. Arrange some different shaped glass bottles in a row.
2. Pour water into them, filling them with different amounts. Blow over the mouth of each bottle. What do you notice?

Blowing over the bottles makes the air in them vibrate, creating sounds. The type of sound you make depends on how much air there is. A little air (in the bottles with more water) makes a higher sound. A lot of air (in the bottles with less water) makes a lower sound.

138 Hit it!

Use a spoon or stick to hit gently against the sides of the bottles. What happens?

Tapping the bottles makes the air vibrate, too. The less air there is, the higher the sound you make.



139 Didgeridoo

1. Fold a piece of baking paper around a plastic comb.
2. Hold this on top of an empty wrapping paper tube.
3. Rest the bottom of the tube on a table, lift the top to your mouth, then blow strongly onto the comb. What happens?



This is a simple version of an Australian instrument called a didgeridoo. Blowing the comb through the paper makes buzzing noises. These echo in the tube, making the air vibrate to create loud, rumbling sounds.

140 Speakers

1. Snap your fingers beside your ear and notice how loud the sound is.
2. Next, blow up a balloon. Hold it to your ear and snap your fingers near the opposite side of the balloon. What do you notice now?



When you snap your fingers near the balloon, the air trapped inside it vibrates more than air outside would (as the vibrations bounce around inside the balloon). These strong vibrations magnify the snap, so it sounds louder. The balloon is acting a little like a loud speaker.



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