



Find out how differently pitched sounds are made.



## Materials

- between 5 and 8 identical bottles
- water
- spoon or fork

## Did You Know?

If you want to make a musical scale, place the bottles in order from the one that makes the lowest sound to the one that makes the highest sound (you might need to add more water to some or tip a little out). See if you can make up a tune, or play one that you know.

## STEPS

1. Put the bottles in a line.
2. Add water to the bottles. Fill the first bottle with a little water and the next one with a little more than the first, until you have filled all the bottles with different but increasing amounts of water.
3. Now take the spoon and strike the bottles one after the other.
4. Then strike the bottles in any order. Can you make a tune?

## WHY?

The more water in a bottle the lower the pitch will be. This is because the sound vibrations you can hear come from the actual bottle, and as you add water it takes on a greater vibrating mass. The less water that is in a bottle means there is less weight that vibrates and the pitch is higher.

