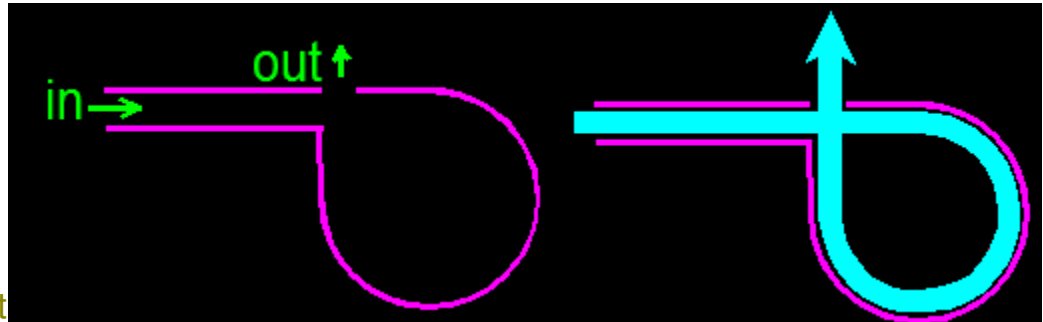


# EXPLORING WHISTLES

## How do whistles work?

Typically whistles involve air streams that flutter against each other. Take the typical whistle where the air rushes straight in and curls around. It



has to break through an earlier part of the air stream to get out the top. This creates an unstable situation, with the air streams fighting for dominance. They alternate thousands of times per second, creating high-pitched sound. If you could see the air bursts, you would actually see thousands of tiny vortices (like tornados) dancing around. The illustration in [this link](#) shows vortices being formed in an organ pipe.

## News flash!

I said in the introduction page that I could not whistle with fingers in my mouth, but I found a good, illustrated page by Steve Thompson that shows and tells how to do it. Because it's a sponsored Geocities link, there is a pop-up ad that my browser blocks. Most of the page is about the [double handed cooing whistle](#) but there is also some pointers for shrill whistles as well.

## Clay whistles

In Japan I bought some hand-made clay whistles shaped like doves. They make a beautiful, soft sound. I just found a richly illustrated web site that tells [how to make such clay whistles](#). I'm going to try my hand at it when I get some time.

## A straw whistle

<http://www.e-scoutcraft.com/misc/whistle.html> and here is a harder-to-make one out of wood. [http://www.e-scoutcraft.com/wood\\_carving/whistle.html](http://www.e-scoutcraft.com/wood_carving/whistle.html) Thanks to Erik Bell for the links.

## Miscellaneous sites of interest:

Here is a bit about [whistle history](#). Check out this [steam whistle](#) collector's site. This page has an account of the invention of [underwater whistles](#). Here are some sites that deal with principles of sound. [Shaku](#), [physics classroom](#),

## Whistling with a blade of grass:

<http://www.discoverycentermuseum.org/experiments/271.htm>

[http://www.ehow.com/how\\_17531\\_whistle-grass.html](http://www.ehow.com/how_17531_whistle-grass.html)

<http://nicholasacademy.com/scienceexperiment271grasswhistle.html>

Thanks again to Erik.

[Back to the acorn whistle  
introduction page.](#)

[Back to the science  
toymaker home page.](#)

I'd like to know how this project goes for you. I'm happy to answer questions about it. Feedback from you is an important way for me to know what works and what needs clarification.

[contact me](#)