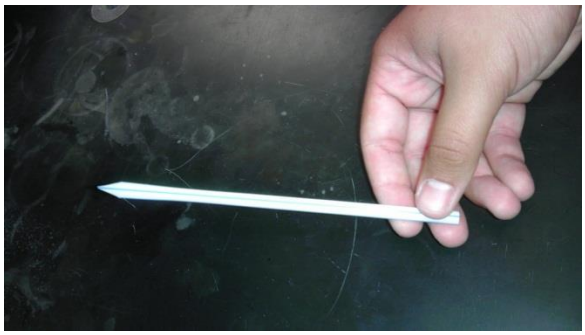
California State University of Bakersfield, Department of Chemistry

Make a Simple Duck Call



Standards:

7th : 5. g Students know how to relate the structures of the ear to their functions.

Introduction:

It's a duck call.

Materials:

- One plastic straw from your kitchen or local fast food restaurant
- Scissors

Safety:

- Always have an adult with you to help you during your experiment.

Procedure:

1. Use your fingers to press one end of the straw to flatten it, the flatter the better.
2. Cut the flattened end of the straw into a point.
3. Flatten it out again real good.
4. Now take a deep breath, put the pointed end of the straw into your mouth and blow hard into the straw. If all goes well you should hear a somewhat silly sound coming from the straw. The smaller you are, the harder it may be to get a good sound. If you still have trouble try flattening out the straw some more or cutting the straw in half.
5. Don't stop there, try cutting the straw different sizes to see how the sound changes, or another identical straw and add the pointed end of the new straw into the uncut end of the first straw (to make the straw longer). The sound will be very different, (more like a moose call!) and you will have to blow even harder, but give it a try.

Data and Observations:
Record your observations in this space.

What did you see? Anything you were not expecting? Something really awesome? Describe it here.

Questions:

1. Which size straw call sounded the most like a duck?

2. Which length of straw is the easiest to get a sound? Which is the hardest?

3. Does the diameter of the straw affect the sound it produces?

References:

1. Sciencebob.com
http://www.sciencebob.com/experiments/duckcall.php
(accessed July 23, 2012)