**Jelly bean tasting**

**Purpose**: Demonstrate how the perception of flavor is a combination of smell and taste

**Ages**: all ages

**Staffing requirements**: 1 person

**Set up time**: minimal

**Materials**: bag of jelly beans, hand sanitizer or neoprene gloves (for safe food handling), plate to fit a handful jelly beans

**Suggested activity:** Ask people “Did you know you can taste with your nose?” Our sense of smell is actually responsible for a lot of what we call taste. Let me show you how. You are going to plug your nose and choose a jelly bean to eat. Put the jelly bean in your mouth and start chewing—with your nose still plugged. Think about what you are sensing as you chew. When you are halfway done chewing, unplug your nose and exhale through your nose. What do you sense now? You’ll probably find that you only tasted something sweet when you nose was plugged. When you unplugged your nose all of us a sudden you could “taste” the flavor. This is because our sense of smell is responsible for most of what we “taste” with our tongue.

Alternatively: Introduce activity and then have people close their eyes, plug their nose, and hold out their hand. You place a jelly bean in their hand and they put it in their mouth without seeing the color. Once they start chewing they can open their eyes. Ask them to identify the flavor while their nose is plugged and then when they exhale.

Extension: have people eat another jelly bean (not plugging their nose) and think about where they perceive the flavor. We perceive flavor as coming from our tongue even though flavor is an integration of smell and taste. (And even after learning that flavor comes from the nose, we still perceive it on the tongue – so you can’t always believe what your brain is telling you!)

Questions for visitors:

What are the 5 basic tastes? A: sweet, salty, bitter, sour, and umami aka savory.

What are the basic categories of smells? A: There aren’t any! No classification of smells exists, although scientists estimate we can smell around 10,000 different odors. Each odor is a chemical, and sometimes those chemicals can differ by just one molecule, or even have the same molecules but be mirror images, like a left and right shoe, as in the odors of spearmint and caraway. The cells in our nasal cavity that detect odors are sensitive enough to tell the difference!

**Background information:**

**Helpful websites:** “The smell report” [http://www.sirc.org/publik/smell\_lhuman.html](http://www.sirc.org/publik/smell_human.html)

**Tips:** get a bag of jelly beans with only a few flavors so people are less choosy and aren’t afraid of getting a flavor they won’t like

*Summary prepared by Kelley Remole, May 2013*