Flavor, Taste, and Aroma

In this activity, you will learn about the relationship between flavor, taste, and aroma.

Materials

- Apple slices (enough for ~5 bites)
- Vanilla
- Cinnamon
- Coffee Grounds
- Condiment cups/small containers

Instructions

1. Prep the materials: Cut the apple slices, and place the vanilla, cinnamon, and coffee grounds in individual condiment cups.
2. Let's start off with some predictions. Come up with a hypotheses regarding how taste and smell affect flavor.
3. Begin with your control -- take a bite of apple normally. Discuss.
4. Next, take a bite of apple while plugging your nose. Discuss.
5. Now, we'll take bites while smelling other foods -- vanilla, cinnamon, and coffee grounds. Discuss, comparing the experiment's actual results to campers' hypotheses.
6. Try answering the questions: How does smell affect flavor? What is the difference between plugging your nose and smelling a different food? How does it change what you're eating?

What's the science behind it?

Flavor refers to our overall impression of a food but consists of stimulus from three different senses: taste, aroma, and touch. We smell when breathing through our noses, but we also smell our food when we breathe out through our noses when we chew. As the air passes the back of your mouth on its way to your nose, it picks up aroma molecules. This type of smelling is called "retronasal" sensing of aroma. Your brain assumes this comes from your mouth, altering the full flavor of food so that it not only includes taste but also aroma.