



SCIENCE FESTIVAL FAMILY EXPERIMENT GUIDE: IT'S ALL IN THE TASTE BUDS

Instructions:

Together: follow along with the instructor

Student: Close your eyes and hold your nose (pinch your nose closed until instructed to stop)

Adult: Feed your partner one

of the hard candies, without telling them the flavor or color.

Student: Try to guess what flavor and color the candy is without letting go of your nose.

Repeat the activity, with the adult and student switching roles.

Questions for after:

K-2nd Grade:

- Did you guess the correct color and flavor of your candy?
- Did your candy taste the same with your nose pinched and un-pinched?
- What part of our body do we taste with?

3rd-5th Grade:

- Did you guess the correct color and flavor of your candy?
- Why do you think there was a difference when you pinched your nose?
- Did you change your answer to what part of the body you taste with, why or why not?

How It Works:

Much of what we perceive as “taste” is due to our sense of smell. At first, you probably couldn’t tell the specific flavor of the candy—you might have just noticed that it was sour or sweet. As the candy dissolved, you may have noticed that it got easier to identify the specific taste. This is because molecules are released as the candy dissolves. Those molecules traveled up a passage at the back of your throat to your nose. We can only taste five different true tastes—sweet, sour, salt, bitter and umami. It is smell that lets us experience the complex flavors we associate with our favorite foods.

Vocabulary:

Nasopharynx: The “back door” that connects your nose and mouth.

Orthonasal; ortho – upright/proper + nasal – nose; Sniffing with your nose

Retronasal: retro back/behind + nasal – nose; Chewing food

Real-World Application:

Have you ever made someone laugh when they were in the middle of taking a drink, and they wound up shooting milk out of their nose? If so, you probably saw a good demonstration of this connection between the nose and mouth! If you have ever been sick and had a stuffy nose you may have noticed food isn’t as tasty this is because taste comes from our sense of smell. Sometimes people have long-term loss of smell and lose the ability to taste.

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