

A STEM in the Park

Take Home Activity

STEM

in the **PARK**™

Science, Technology, Engineering, and Mathematics

Can You Taste the Jelly Bean Flavor?

What You Need

- Three flavors of Jelly beans (at least one flavor should be Cinnamon)
- Three small bowls or containers to hold jelly beans



What To Do

1. Have three bowls/containers – one for each flavor of jelly bean.
2. Plug your nose and try one of the jelly beans from the first bowl.
3. Can you taste the flavor?
4. Eat another jelly bean from the same bowl but do not plug your nose.
5. Can you taste the flavor now?
6. Repeat steps 2-6 with jelly beans from the second bowl.
7. Can you taste the flavor?
8. Repeat steps 2-6 with jelly beans from the last bowl (should be cinnamon)
9. Can you taste the flavor?

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The Science

Why can't I taste the flavor of the jelly bean when my nose is plugged?

That's because taste and smell work together. Chemicals from food are released when you chew, then travel to your nose where special receptors in the nose help you smell. These receptors are called olfactory receptors. Your nose cannot receive food chemicals from your chewing if your nose is stuffy or closed which makes the food you are eating seem to not be as flavorful.

Why do I feel a sensation when I eat the cinnamon jelly bean when my nose is plugged?

The reason you feel a sensation from the cinnamon is because it has components that activate cells linked to your trigeminal nerve. However, the trigeminal nerve carries information about touch, pressure, temperature, and pain rather than taste. This means that even though your nose is plugged and you do not get the full "flavor" of cinnamon, you still feel a sensation. You can get this same sensation by sticking cinnamon gum to your forearm or forehead...they have the same trigeminal innervation!

***Small jelly beans may be a choking hazard*

***Check jelly bean brands for potential allergy information*

***This activity is brought to you by the
BGSU Biology Graduate Student Association (BGSU)***

