Carolina Quick Tips®

A "Taste" of Carolina® Physiology

Our sense of taste is limited to 5 basic responses: sweet, sour, salty, bitter, and umami. Because of the limited number of taste responses, our sense of taste is often influenced by other factors such as smell, texture, and preconceptions. This activity supports 3-dimensional learning and builds toward the following:

- NGSS Scientific and Engineering Practices: Constructing Explanations
- NGSS Core Idea: Life Science 1: From Molecules to Organisms: Structures and Processes.

Materials Required

Carolina® Confusing the Senses Kit (694515)

OR

Small Cup Labeled "A" (with unknown purple liquid)

Small Cup Labeled "B" (with unknown red liquid)

Small Cup Labeled "C" (with unknown blue liquid)

Small Cup Labeled "D" (with unknown yellow liquid)

Small Cup Labeled "E" (with unknown green liquid)

Cut Drinking Straws

Safety

Follow and model all basic safety procedures. Do not contaminate the samples.



Activity Procedure

1. Place a cut straw into Cup A.
2. Put a finger on the exposed end of the straw, trapping the liquid.
3. Open your mouth, place the straw over your tongue, and release your finger from the top of the straw. DO NOT allow the straw to touch your tongue. If the straw touches your tongue, throw it away immediately.
4. Taste the solution, and write down its flavor in the table below.
5. Throw away the cut straw.
6. Using a different straw for each solution, repeat the preceding steps for Cups B, C, D, and E.

	Cup A	Cup B	Cup C	Cup D	Cup E
Flavor Observed					

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Results/Summary

Your perception of a solution's flavor may have been influenced by the solution's color. Most of the flavors we experience, along with basic taste responses, come from the odor of the food that travels through our nasal passages and through a passage in the back of the mouth to the olfactory epithelia. But the perception of flavor can be influenced by other factors such as texture, preconceptions, and even our sense of hearing.

Additional Information

View more information, content links, and products related to this activity at www.carolina.com/takeaways.

Key to the Prepared Taste Solutions

Each of the five solutions was made up of the flavor of sports drink and one drop of the food coloring(s) indicated in the table below.

	Cup A	Cup B	Cup C	Cup D	Cup E
Flavor	**Grape**	**Fruit punch**	**Grape**	**Fruit punch**	**Lemon-lime**
Food Coloring	**Red + Blue**	**Red**	**Blue**	**Yellow**	**Green**

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