

Yum and Yuk

How We Taste

The tongue is an amazing organ. It contains the only muscles in our bodies that are not connected to bones and can move in many positions. The top surface of the tongue is coated with mucous and has special bump-like structures called taste buds. When coated with saliva, these taste buds can detect sweet, sour, bitter, salty, spicy flavors and a newly recognized taste of umami that recognizes savory (glutamate, MSG).

The tip, sides and back of the tongue are most sensitive and in the past were “mapped” as tasting only one flavor for each section of the tongue: sweet on the tip, bitter in back, salty and sour on the sides. Now scientists know these flavors in varying degrees can be tasted all across the tongue.

For Safety sake, children shouldn't taste any substances unless under your direction.

If you have a schoolyard garden, let the fun begin.

- **Take a Look at a Tongue.** Pair students facing each other and have them stick out tongues for their partners to observe. Can they distinguish taste buds of different sizes? Now everyone is ready to taste. (This has no effect on taste, but some students can roll their tongues. Math problem: What % of students are rollers?)
- **Taste the Tomatoes.** If your garden has many Sweet 100s or other cherry tomatoes, ask students to compare a ripe and unripe fruit to describe flavors. The sense of taste and sense of smell often work “in partnership.” Touch and smell an overripe tomato for a comparison. If there is not a large supply, cut the tomatoes into containers and let students use toothpicks to retrieve a small sample. Have paper towels handy. For other fruits, watermelon, cantaloupe and cukes make a nice comparison even if it means a trip to the grocery store. What defines a fruit?
- **Lick the Leaves.** If available, cabbage, lettuce, spinach, cilantro, mint make nice comparisons as students munch and discuss flavors and favorites. Lots of good vocabulary to record here including the term “vegetable.”
- **Sample Stems:** Asparagus, celery and young green onions. Again, cutting samples of these vegetables makes for a variety of flavors, textures and aromas to support new vocabulary.
- **Crunching Carrots – and other roots.** After tasting fruit, leaves and stems, move down to roots. Carrots, radishes (if not too hot), beets and

Sense of Taste contd.

turnips add new textures and taste sensations – and interesting vocabulary.

Management Strategies: As you plan your garden, keep sensory experiences in mind. In addition to herbs, a few fragrant pollinator-friendly flowers like Hyssop (smells like licorice) make nice garden additions.



Students at Meadowbrook Elementary in Golden Valley taste produce from their school garden the same day it's picked.

