Fooling Your Tongue

Purpose To demonstrate how smell affects taste.

Materials
Apple
Eyedropper
Vanilla extract
Cotton ball

Procedure
• Take a bite of apple.
• Chew it thoroughly and swallow.
• Observe how the apple tastes.
• Add several drops of vanilla extract to the cotton ball.
• Hold the cotton ball near, but not touching, your nose as you take a second bite out of the apple.
• Continue to smell the cotton ball as you chew the bite of apple.

Results Before you smell the vanilla, the apple has a regular apple taste. While smelling the vanilla, however, the apple seems to taste like vanilla.

Why? The nerve endings on the tongue allow you to identify only four different basic tastes: sweet, sour, salty, and bitter. Other taste sensations are due to your sense of smell. The apple's smell influences how it seems to taste. When the apple's smell is masked by the strong smell of the vanilla extract, the apple tastes like what you smell—vanilla.