

Biology for Kids

Smelling and Tasting



Smelling and tasting are two of the five senses. They often work together, so we'll talk about both here.

Smelling and the Nose

We use our nose to smell things. At the top of the inside of our nose are millions of tiny little hairs called cilia. These hairs are connected to smell sensors which send signals to our brain about smell via the olfactory nerve. We smell things when they emit small molecules that float in the air and end up in our nose. We can't see these tiny molecules, but they are there. The reason we sniff is to get more of those molecules up into the top of our nose to where they can attach to the special sensors and determine the smell.

Smelling helps us in many ways. It first makes our food taste better. We can't really taste that many flavors, but with the help of smell we can "taste" thousands of different things. Also, smell helps to warn us from bad things like rotten food or smoke from fire.

Tasting and the Tongue

We use our tongue to taste things. The tongue uses taste buds or sensor cells to determine the type of food and send taste signals back to our brains. The tongue can taste four different flavors: bitter, sour, salty, and (maybe best of all) sweet. It was once thought that each of these tastes came from a different spot on the tongue: sweet from the tip, salty from the sides, sour from the back sides, and bitter from the back. Now scientists say that flavors can be tasted from most any part of the tongue.



Sour taste buds

Using Smell and Taste Together

As we discussed above, we can taste four distinct flavors. We can also smell over 10,000 smells. When we eat something, the flavor comes from a combination of taste and smell. Sometimes touch or pain can affect the taste as well due to the texture of the food or the hotness of spicy food.

Interesting Facts About Taste and Smell

- Scientists probably know less about these two senses than any other, even though hearing and seeing are much more complex.
- The lumps on our tongues are called papillae.
- The average length of a human tongue is 4 inches, the average length of a giraffe's tongue is 19 inches.
- The tongue is made up of a bunch of muscles.
- Just like some people can't see or hear, some people can't smell. This is called anosmia.
- As you grow older, your sense of smell tends to get worse.