

For Creative Minds

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Sense of Smell



Everything in the world is made of chemicals. As the air moves, it picks up tiny pieces of everything it touches. It carries these chemicals to your nose.

In the back of your nose is a special patch of skin filled with **chemoreceptors**, also called olfactory receptors. In adults, this area is about the size of a postage stamp.

chemo: chemical

receptor: a place that takes something in

A chemoreceptor is a place that takes in chemicals.

Smells

When you have a stuffy nose, you probably can't smell very well—or taste well either! Eighty percent of our taste is related to smell, so when a cold causes nasal obstruction, it not only prevents you from smelling very well, but you also aren't able to taste very much.

Some sicknesses can change the way you smell things. Certain smells may be harder to sense, or might smell stronger.

When you breathe in through your nose, the air moves through your nose and down into your lungs. The chemicals carried on the wind touch the chemoreceptors at the back of your nose.

The chemoreceptors send a signal to your brain so you know what you are smelling. Most people can sense at least one trillion distinct scents. In general, women are more sensitive to smells than men.

Fun fact: You will probably never have a sense of smell better than you have when you are 8 years old!

Fun Facts

Bloodhounds have noses ten- to one-hundred-million times more sensitive than a human's.

Bears have a sense of smell seven times stronger than a bloodhound.

Many fish have a well-developed sense of smell.

Albatrosses can find food over 12 miles (19 km) away by smelling it.

Homing pigeons have been shown to use their sense of smell to help find their way home more easily and directly.

Turkey vultures eat mostly decaying bodies of animals which they find by using their sense of smell.

People can detect at least one trillion distinct scents.

Our noses can taste as well as smell. The taste buds on our tongues can only distinguish five qualities: sweet, sour, bitter, salty, and savory (umami). All other 'tastes' are detected by our nose.



Match the Nose

Match each animal to its nose:

Striped skunk

Red fox

Eastern chipmunk

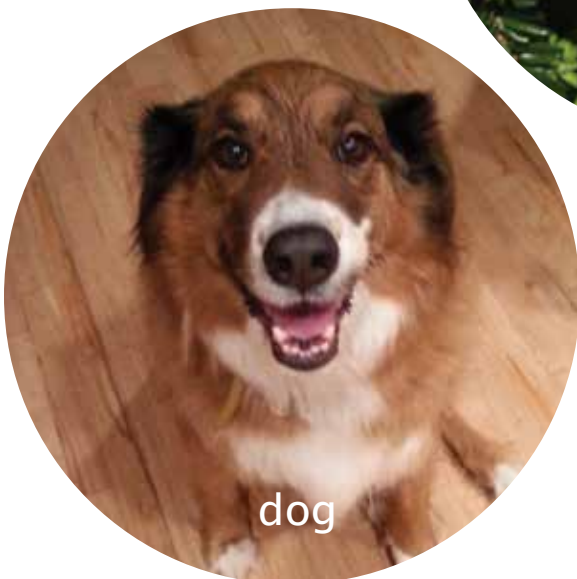
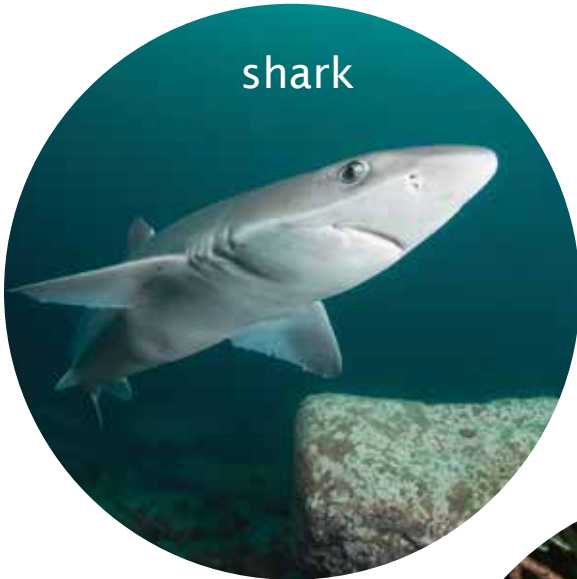
Star-nosed mole



Answers: A: eastern chipmunk. B: red fox. C: star-nosed mole. D: striped skunk

Animals With a Very Good Sense of Smell

Can you guess which of these animals have a good sense of smell?



Answer: All of them!