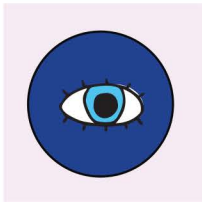


How do the senses work?

By Elizabeth A. Weaver II & Hillary H. Doyle

Your brain collects information, like smells and sounds, through your five senses: sight, hearing, touch, taste, and smell. Each of your five senses has its own special sensor. Each sensor collects information about your surroundings and sends it to the brain. Then, your brain uses the information from your senses to help you understand the world around you.



Your eyes are the sensors for sight. They can see all the colors of the rainbow as well as shades of light and dark. Your eyes can also tell if things are close or far away. Of all the animals in the animal kingdom, humans are very reliant on their eyesight. Have you ever tried to hit a piñata at a party while being blindfolded? It's not easy!



Your ears are the sensors for hearing. They give your brain information about what kind of sound you're hearing and where that sound is coming from. Did you know your ears also help you balance? Deep inside your ear, you have special sensors that tell your brain if you are standing right side up or if you're standing on your head.



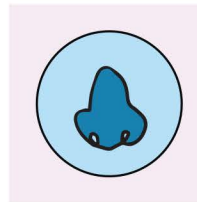
Your tongue is the sensor for taste. Your tongue can taste sweet, salty, sour, and bitter flavors. Your tongue can also taste "umami" or savory flavors like meat or vegetables.

Think of your favorite food. What kind of taste is it? Is it sweet? Is it salty?



Your skin is the sensor for touch. This sensor passes on information about hot and cold temperatures, when something tickles, or when you have an itch.

Be careful not to touch anything too hot because your skin can also sense when something hurts – ouch!



Your nose is the sensor for smell. A smell comes into your nose and then special sensors tell your brain about what you are smelling. Our brains can remember many different kinds of smells. In fact, we can remember smells better than any of our other senses.

Although sight, hearing, touch, taste, and smell are the five most common senses, you also have senses that tell you when you are hungry or thirsty, or when you have to use the restroom. You also have special senses for your muscles that

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tell your brain where your arms, legs, and head are. Try to close your eyes and touch your nose. You can't see your nose, but your other senses help you find it.

Your brain collects information from your eyes, ears, nose, mouth, and skin and puts it together into one big picture. It seems as though all of your senses are working separately, but your senses are a team that works together. You might not notice that your senses are working together until you lose one. For example, have you ever tried eating dinner with a stuffy nose? When your sense of smell is not working, food does not taste

the same. This is because your sense of smell and your sense of taste work together.

Your senses are working together to help you understand the world and react to the changes in your environment. A horn from a car can warn you about crossing the road, and the temperature of a burner on the stove on your skin can alert you to pull your hand away. The senses help you explore and help you react to things around you to keep you safe. The next time you wake up, go outside to play, or sit down to dinner, just remember that all of your senses are hard at work.

