

Sense Organs: Skin, Nose, Tongue Lesson



Background Information

Unlike the other sense organs, such as the eyes, skin is not simply involved with a single sense. In addition to its role in the sense of touch, it has many other jobs. Skin is the body's largest organ. The skin's tough surface layer, called the epidermis, keeps out water, dust, germs, and harmful ultraviolet rays from the sun. It continually replaces itself to repair wear and tear. Beneath the epidermis lies a thicker layer, called the dermis, which is packed with sensory receptors, nerves, and blood vessels. In hot conditions, the dermis also helps steady body temperature at 98.6°F (37°C) by releasing cooling sweat from its sweat glands. Hair and nails grow from the skin's epidermis and provide additional body covering and protection.

The senses of smell and taste are closely linked because they both detect chemicals. Taste receptors on the tongue detect substances in drink and in chewed food. Olfactory (smell) receptors in the nasal cavity pick up odor molecules in air. Together, the senses of smell and taste enable us to enjoy the flavors of food and drink. The two senses also help to protect us from harm. They can identify smells such as smoke that may indicate danger, or the bitter tastes of spoiled or poisonous food.

In this mini-lesson, your students will get a brief introduction to the skin, nose, and tongue which can set the stage for further discussion about these important sense organs.