

Topic/Objectives: 9-2 Sense of Smell and Taste; (1) Name the body's special senses, (2) Describe how the body senses chemicals in the air and interprets them into smells, (3) Describe how the mouth senses chemicals introduced into the oral cavity and interprets them into taste.

Name:

Date:

Period:

Essential Question: How does the body take chemicals from the air and the food we eat and interpret them into the senses of smell and taste?

Questions:

Notes:

The _____ senses are associated with fairly large and complex structures located in the head.

These include the senses of _____, _____, hearing, static equilibrium, dynamic equilibrium, and sight.

Sense of Smell

- Olfactory Receptors are _____, and they operate together with taste to aid in food selection.
- Olfactory Organs
 - Are located in the upper nasal cavity and contain the olfactory receptors plus _____ supporting cells.
 - The receptor cells are _____ neurons with hair-like cilia covering the dendrites. The cilia project into the nasal cavity.
 - To be detected, chemicals that enter the nasal cavity must first be _____ in the watery fluid surrounding the cilia.
- Olfactory Nerve Pathways
 - Sensory impulses are passed from receptors to neurons in the _____, where they are first analyzed, then travel along the olfactory tracts to the olfactory cortex in the temporal lobes.
- Olfactory Stimulation
 - Scientists believe that each odor stimulates a set of specific _____ in cell membranes.
 - The brain interprets different receptor combinations as an _____.
 - Olfactory receptors adapt quickly but _____.

