3.03 Remember the structures of the sensory system
Essential questions

What are the structures of the sensory system?
The Senses

- **Eyes**
  - Sight
- **Ears**
  - Hearing
- **Nose**
  - Smell
- **Tongue**
  - Taste
- **Skin**
  - Touch

3.03 Remember the structures of the sensory system
Eyes

3.03 Remember the structures of the sensory system
Structures of the eyes

- **External structures**
  - Orbit-cavity that contains eyeball
  - Eyelids-protects eye
  - Eyelashes-prevents large particles from entering
  - Conjunctiva-protective membrane
  - Lacrimal apparatus-produces & stores tears

3.03 Remember the structures of the sensory system
Structures of the eyes:
Layers of eye:

• 1. **Sclera**-outer fibrous “white”


• 2. **Choroid Coat**-middle layer. Blood vessels and pupil.

• 3. **Retina**-innermost layer. Has rods & cones for light/color. Sends image to optic nerve.

• Iris-colored part of eye surrounding pupil.

• Lens-crystalline structure behind iris & pupil. Focuses images on the retina.

• Aqueous & Vitreous humor
Structures of eyes

- **Extrinsic muscles** - move the eye within the orbit, attached to sclera
- **Intrinsic muscles** - Contract or dilate pupils

3.03 Remember the structures of the sensory system
Eyes

- **Internal structures**

3.03 Remember the structures of the sensory system
Eye Trivia

- Which famous screen actress was noted for her stunning eyes?
- Many people thought her irises were violet in color...

What gives the iris color?
Structures of the eyes

- Internal structures

3.03 Remember the structures of the sensory system
Structures of the eyes

- **Rods and cones**
  - **Rods**
    - Active in dim light
    - Do not perceive color
  - **Cones**
    - Active in bright light
    - Perceive color
Eyes

• Review

3.03 Remember the structures of the sensory system
Ears

3.03 Remember the structures of the sensory system
Structures of the ears

- **External ear**
- **Middle ear**
  - Also known as the tympanic cavity
- **Inner ear**
  - Also known as the labyrinth

3.03 Remember the structures of the sensory system
Structures of the ears

- **External ear**
  - Pinna or auricle
  - Auditory canal or external auditory meatus
- **Ceruminous glands**
- **Tympanic membrane**
Structures of the ears

• Middle ear
  • Ossicles
    • Hammer or malleus
    • Anvil or incus
    • Stirrup or stapes
  • Eustachian tube
Structures of the ears

- **Inner ear**
  - **Cochlea**
    - Perilymph fluid
  - **Semicircular canals**
    - Endolymph fluid
  - **Vestibule chamber**
Ears

- Review

Name the structures...
Nose

3.03 Remember the structures of the sensory system
Structures of the nose

- Nares
- Nasal cilia
- Nasal septum
- Olfactory receptors
- Turbinates
Structures of the nose

3.03 Remember the structures of the sensory system
Structures of the nose

- Olfactory area
Structures of the nose

Discuss the structures of the nose in relation to the olfactory nerve.
Tongue

3.03 Remember the structures of the sensory system
Structures of the tongue

3.03 Remember the structures of the sensory system
Structures of the tongue

- **Taste receptors**
  - Also known as gustatory buds or taste buds

What type of tissue is the tongue made of?
Trivia Tongue

Did you know...

- Taste is the weakest of the five senses
- We have almost 10,000 taste buds inside our mouths; even on the roofs of our mouths
- Everyone’s tongue print is different similar to fingerprints
Skin

3.03 Remember the structures of the sensory system
Structures of the skin

- **Epidermis layer**
- **Dermis layer**
- **Subcutaneous layer**

- **Touch receptors**
  - Tactile corpuscles located in the skin

- **Temperature sensors**

- **Pain receptors**
Structures of the sensory system

Did you know.....

- Our eyes are always the same size from birth, but our nose and ears never stop growing!
Essential questions

What are the structures of the sensory system?

The End