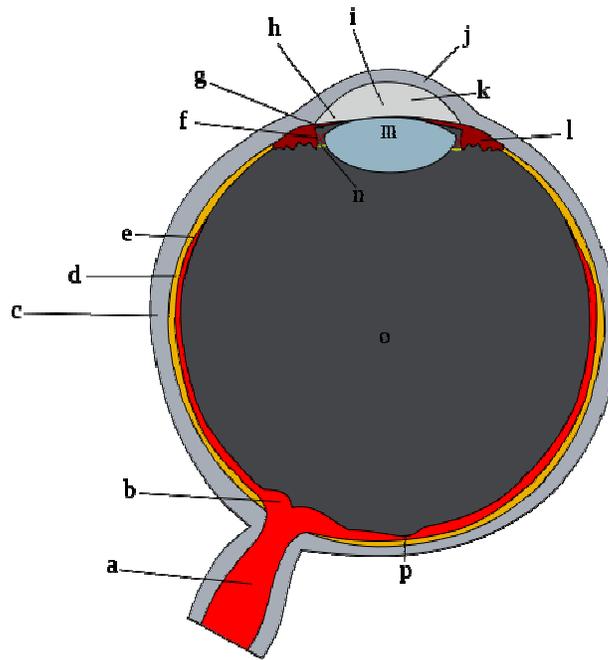


## Unit 8 Quiz



Source:

[http://commons.wikimedia.org/wiki/File:Schematic\\_diagram\\_of\\_the\\_human\\_eye.svg](http://commons.wikimedia.org/wiki/File:Schematic_diagram_of_the_human_eye.svg)

1. Label this structure of the human eye with the appropriate terms. Note you do not need to label every structure in this diagram.

Choices: sclera, optic disc, retina, cornea, iris, optic nerve, lens, choroid, pupil, fovea.

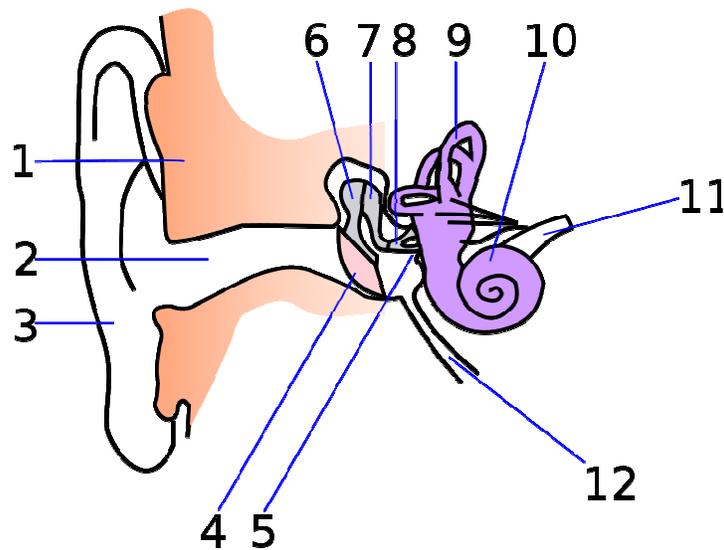
- A)
- B)
- C)
- D)
- E)
- H)
- I)
- J)
- M)
- P)

2. Phototransduction involves three main biochemical events. Arrange these three events in chronological order.

l) cGMP levels reduced



- II) Activation of opsin molecules
- III) Hyperpolarization of photoreceptors



Source: <https://commons.wikimedia.org/wiki/File:Ear-anatomy.svg>

3. Label this structure of the human ear with the appropriate terms. Note you do not need to label every structure in this diagram.

Choices: ear canal, tympanum, incus, malleus, cochlea, auditory nerve, stapes, labyrinth, pinna

- 2)
- 3)
- 4)
- 6)
- 7)
- 8)
- 9)
- 10)
- 11)

4. In the cochlea, inner hair cells receive input from which structure?

- A) Facial cranial nerve
- B) Hypoglossal cranial nerve
- C) Vestibulochochlear cranial nerve
- D) Olivochochlear cranial nerve

5. Match the section of ear with its primary function.

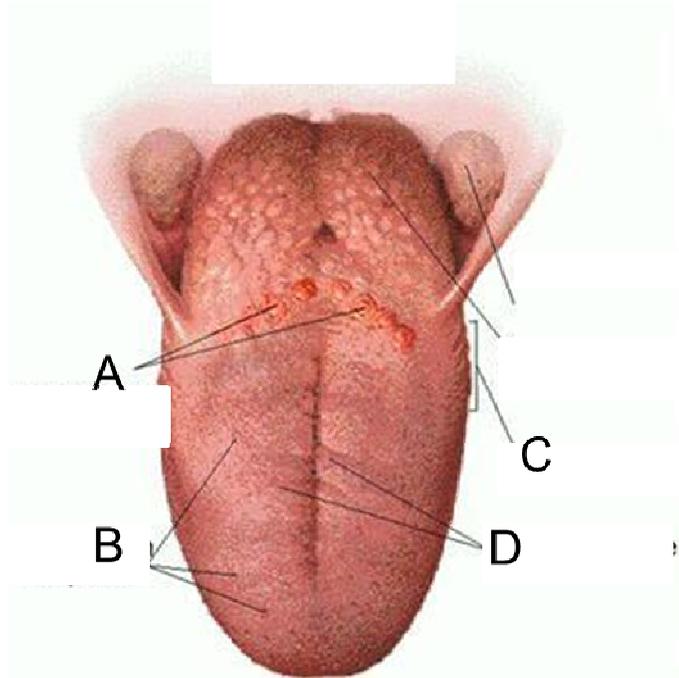
Sections of ear: External ear (E); middle ear (M); inner ear (I).



- A) Transform sound energy (pressure waves) into neural impulses.  
 B) Match low-impedance airborne sounds to higher-impedance fluid of the inner ear.  
 C) Gather sound energy and focus the energy on the tympanic membrane.
6. What is one of the functions of the medial superior olive?  
 A) Localizes sound by process interaural time differences.  
 B) Processing interaural volume intensities.  
 C) Relay sound impulses to thalamus.  
 D) None of the above.
7. In the vestibular system, the otolith organs detect \_\_\_\_\_ movements and the semicircular canals detect \_\_\_\_\_. Fill in the blanks.  
 I) Translational movements  
 II) movement intensities  
 III) rotational movements  
 IV) vertical movements  
 A) I and III  
 B) III and IV  
 C) I and III  
 D) II and III
8. Which of the following cranial nerve is NOT involved in the vestibulo-ocular reflex?  
 A) Vestibulochochlear nerve  
 B) Abducens nerve  
 C) Oculomotor nerve  
 D) Optic nerve
9. Olfactory receptor cells are:  
 A) Glial cells.  
 B) Endothelial cells which synapse on the olfactory nerve.  
 C) Bipolar neuro-epithelial cells.  
 D) Golgi tendon organs.
10. Which of the following statements is NOT true?  
 A) Olfactory receptor cells are linked to the olfactory bulb.  
 B) The olfactory system is linked to the limbic system.  
 C) The olfactory system is directly linked to Broca's area.  
 D) Olfactory cells project to the thalamus.
11. Which of the following is not a target of the olfactory bulb?  
 A) Amygdala  
 B) Entorhinal cortex  
 C) Piriform cortex  
 D) Olfactory peduncle



12. Which of the following cells are 2<sup>nd</sup> order neurons which project to the anterior olfactory cortex?
- A) Mitral cells
  - B) Olfactory receptors
  - C) Glial cells
  - D) Solitarius neurons



Source:

[http://www.google.com/imgres?imgurl=http://mackesanatomy.wikispaces.com/file/view/Tongue2.jpg/71489007/Tongue2.jpg&imgrefurl=http://mackesanatomy.wikispaces.com/Oral%2BCavity%2BAnatomy%2Band%2BDigestive%2BAmmenities&h=342&w=350&sz=20&tbnid=esTAZRFe5atPVM:&tbnh=90&tbnw=92&prev=/search%3Fq%3Dtongue%2B anatomy%26tm%3Disch%26tbs%3Dsur:fmc%26tbo%3Du&zoom=1&q=tongue+anatomy&docid=c0moOEeBZfv4CM&hl=en&sa=X&ei=r7aQT\\_nUJqvYiQL19ojiAg&ved=0CFgQ9QEwBA&dur=43](http://www.google.com/imgres?imgurl=http://mackesanatomy.wikispaces.com/file/view/Tongue2.jpg/71489007/Tongue2.jpg&imgrefurl=http://mackesanatomy.wikispaces.com/Oral%2BCavity%2BAnatomy%2Band%2BDigestive%2BAmmenities&h=342&w=350&sz=20&tbnid=esTAZRFe5atPVM:&tbnh=90&tbnw=92&prev=/search%3Fq%3Dtongue%2B anatomy%26tm%3Disch%26tbs%3Dsur:fmc%26tbo%3Du&zoom=1&q=tongue+anatomy&docid=c0moOEeBZfv4CM&hl=en&sa=X&ei=r7aQT_nUJqvYiQL19ojiAg&ved=0CFgQ9QEwBA&dur=43)

13. Label these taste buds and peripheral innervation of the human tongue.
- A)
  - B)
  - C)
  - D)
14. Sucrose is best tasted on the \_\_\_\_\_ part of the tongue, while salt is best tasted on the \_\_\_\_\_ part of the tongue. Fill in the blanks.
- A) medial, lateral
  - B) posterior, anterior,
  - C) anterior, posterior
  - D) lateral, medial



15. Which of the following does NOT happen during transduction of taste?

- A) Ion channels open
- B) Acetylcholine is released from synaptic vesicles
- C) G-proteins are activated
- D) Serotonin is released from synaptic vesicles

16. Which is the most important tract to carry taste from the tongue to the brain?

- A) Medial lemniscus
- B) Solitary tract
- C) Rubrovestibular tract
- D) Olfactory tract

