

Lab 2: Hearing, Equilibrium, & Taste

Familiarize yourself with the anatomy of the ear (Exercise 25).

1. Use the ear models to identify structures of the ear. Fig. 25.1 & Fig. 25.2. (Activity 1)
2. Examine the tympanic membrane of your lab partner with an otoscope. (Activity 2)
3. Examine the slides of the cochlea of the ear. Identify the structures in Fig. 25.3 & 25.4 (Activity 3).
4. Examine the Crista Ampullaris pic in the text. Identify the cupula, sensory hairs, and ampulla. (Fig. 25.7 (Activity 6).
5. Perform the hearing and balance tests: Do activity 4 and activity 7.
6. Examine the slides of the taste buds (Exercise 25 – Activity 2)

Name the sensory patch (organ) in the utricle. _____

What kind of equilibrium does it sense? _____

Name the sensory patch (organ) in the semicircular ducts. _____

What kind of equilibrium do they sense? _____

What produces endolymph? _____

Which cranial nerve conveys the sense of hearing and balance? _____

What is the function of the pharyngotympanic tube? _____

Name the three middle ear ossicles, starting at the tympanic membrane. _____

Distinguish between **conductive deafness** and **sensoryneural deafness**. _____

Taste and smell both are considered chemical senses. What does this mean?

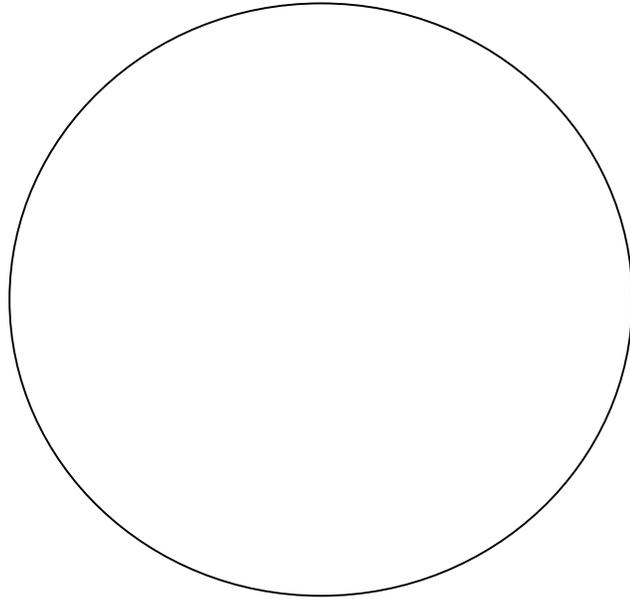
Slide Assignment: Hearing, Equilibrium, & Taste

Draw the following slides using the figures in the lab and histology texts as a reference. Use whichever magnification works best to show all given structures. Please note that not every slide will show everything; you will need to look at multiple slides and/or sources. Your drawings should artistically combine views to include all structures.

- **Cochlea** – You will need to change magnifications multiple times to draw, label, and understand function of the following:

(Beginning on p383 in Lab Text, p574 in Histology Text)

- Scala Vestibuli
 - Perilymph
- Scala Tympani
 - Perilymph
- Scala Media (Cochlear Duct)
 - Endolymph
 - Tectorial membrane
 - Spiral Organ of Corti
- Stria Vascularis
- Vestibular membrane
- Basilar Membrane



- **Taste Buds** - You will need to change magnifications multiple times to draw, label, and understand function of the following:

(Beginning on p399 in Lab Text, 285 in Histology Text)

- Taste Bud
- Gustatory or Taste Pore
- Gustatory Cell
- Basal Cells
- Gustatory or Taste Hairs

