


Name: \_\_\_\_\_

Date: \_\_\_\_\_

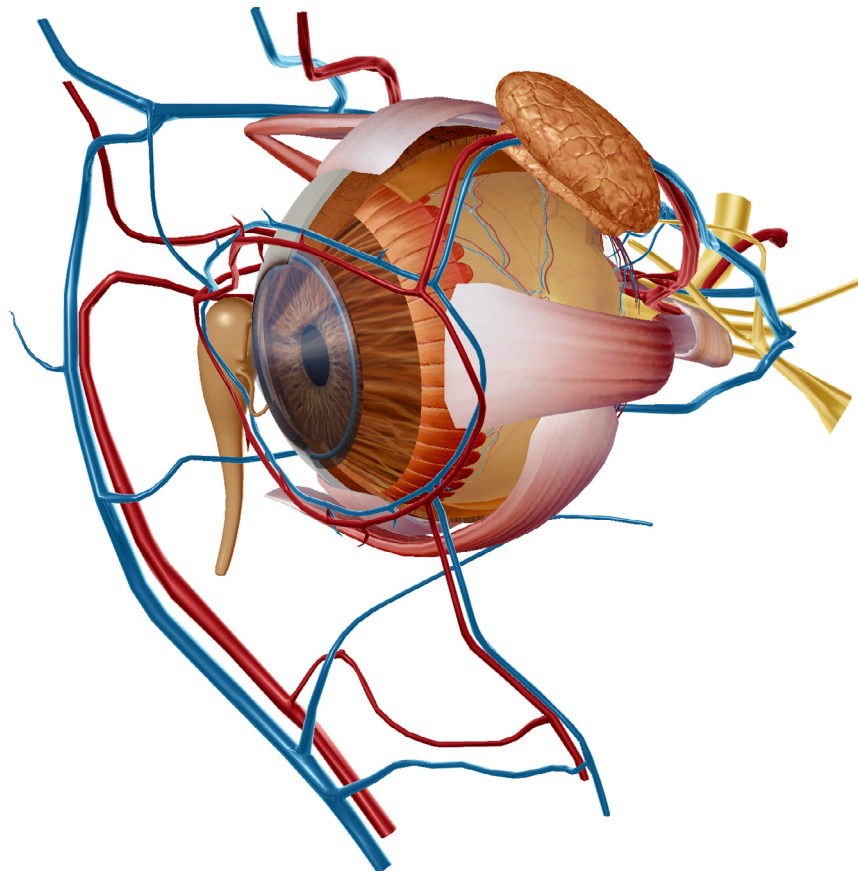
## **Activity 1: Anatomy of the Eye and Ear Lab**

### **1. Launch the view!**

- If you're already in AR mode: point your camera\* at the image below.
- If you're not in AR mode:
  - Open Visible Body Suite.
  - Search for and select the view "Eye."
  -  **Launch AR mode.**

### **2. Explore the eye.**

- Find each structure in the word bank, study its location, read the definition, and listen to the pronunciation.
- In the table, list each structure from the word bank under the correct layer of the eye.



\* Augmented Reality (AR) is supported on many iPhones, iPads, and Android mobile devices. See details at [visiblebody.com/ar](https://visiblebody.com/ar)

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**Word bank:**

- Choroid
- Ciliary body
- Cone cells
- Cornea
- Iris
- Retina
- Rod cells
- Sclera


<b>Fibrous Layer</b>	<b>Vascular Layer</b>	<b>Inner Layer</b>

Name: \_\_\_\_\_

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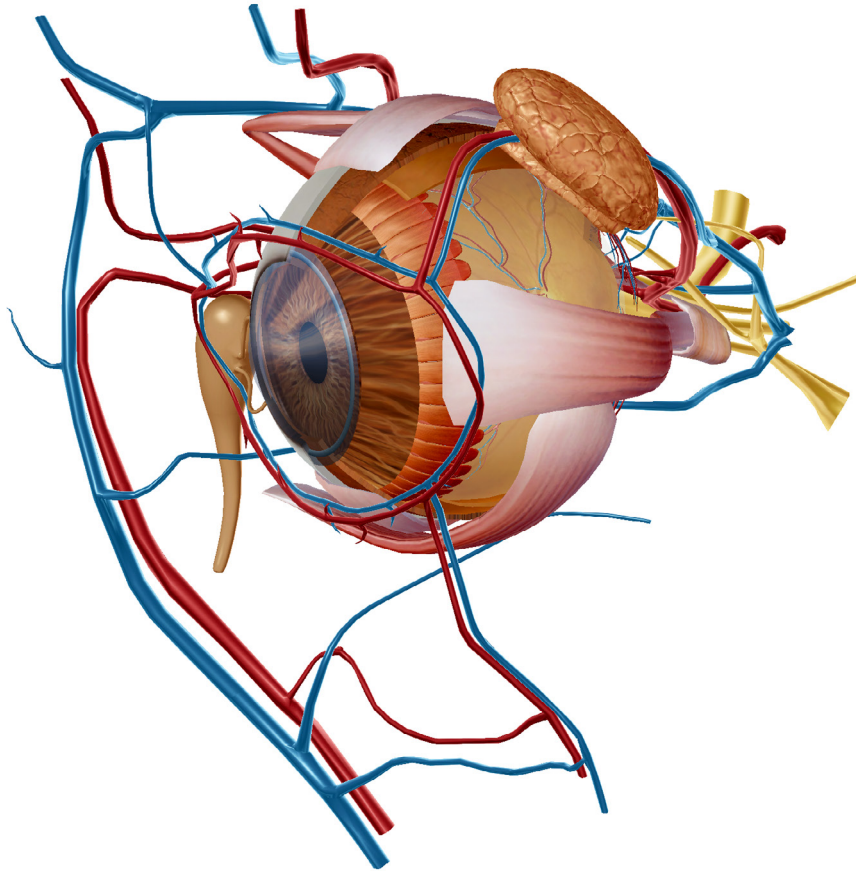
## **Activity 2: Anatomy of the Eye and Ear Lab**

### **1. Launch the view!**

- If you're already in AR mode: point your camera at the image below.
- If you're not in AR mode:
  - Open Visible Body Suite.
  - Search for and select the view "Eye."
  -  **Launch AR mode.**

### **2. Find the key structures of the eye.**

- Read the definition of the structures listed in the word bank.
- In the table, list each structure from the word bank under the function it performs.



Name: \_\_\_\_\_

Date: \_\_\_\_\_


**Word bank:**

- Choroid
- Ciliary body
- Cornea
- Eyelid
- Inferior oblique
- Inferior rectus
- Iris
- Lacrimal gland
- Lacrimal sac
- Lateral rectus
- Lens
- Medial rectus
- Optic nerve
- Retina
- Sclera
- Superior rectus

<b>Protection and Nutrition</b>	<b>Movement</b>	<b>Accommodating Light</b>	<b>Nerve Impulse Transmission</b>

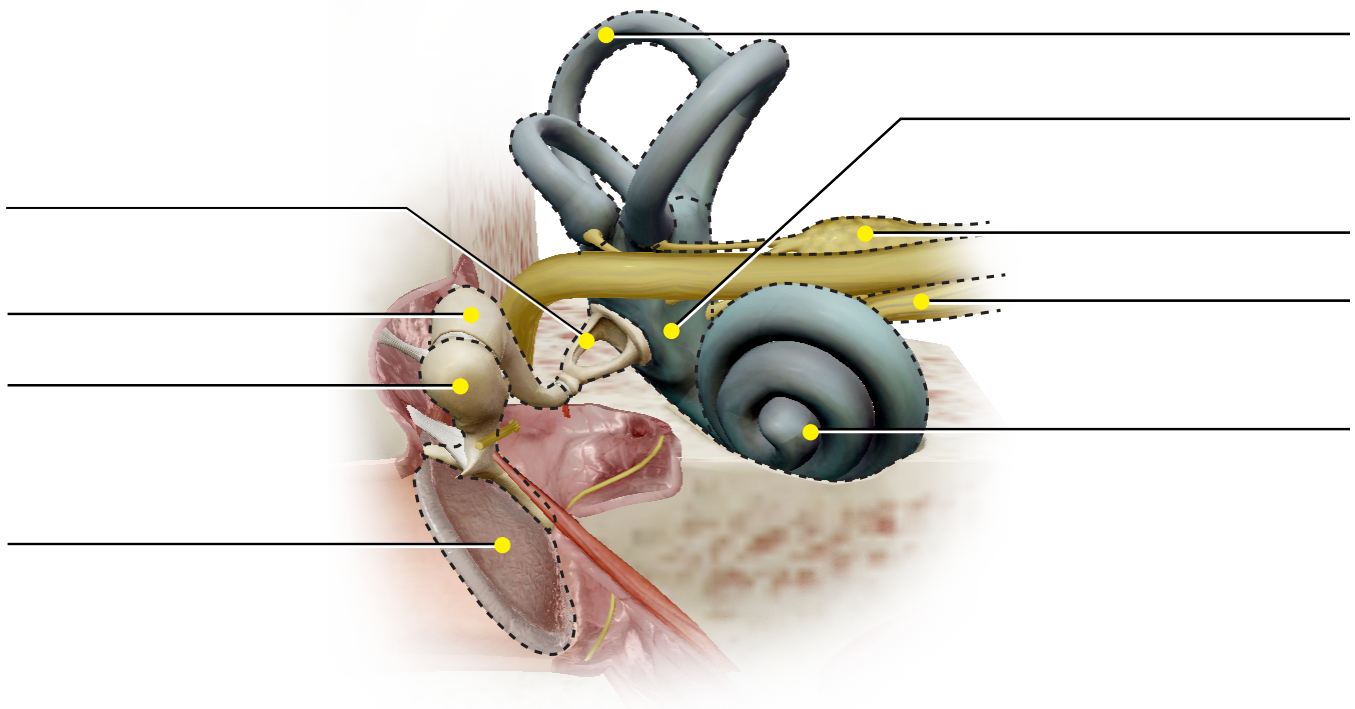
### **Activity 3: Anatomy of the Eye and Ear Lab**

#### **1. Launch the view!**

- If you're already in AR mode: point your camera at the image below.
- If you're not in AR mode:
  - Open Visible Body Suite.
  - Search for and select the view "Ear."
  -  **Launch AR mode.**

#### **2. Label the image.**

- Explore the 3D model of the inner ear to locate the anatomy in the structure list.
- Use the structure list to label the image.



#### **Structure list:**


- |                                   |                        |
|-----------------------------------|------------------------|
| 1. CN 08 (VIII) Vestibulocochlear | 6. Semicircular canals |
| 2. CN 08 (VIII) Cochlear          | 7. Stapes              |
| 3. Cochlea                        | 8. Tympanic membrane   |
| 4. Incus                          | 9. Vestibule           |
| 5. Malleus                        |                        |

Name: \_\_\_\_\_

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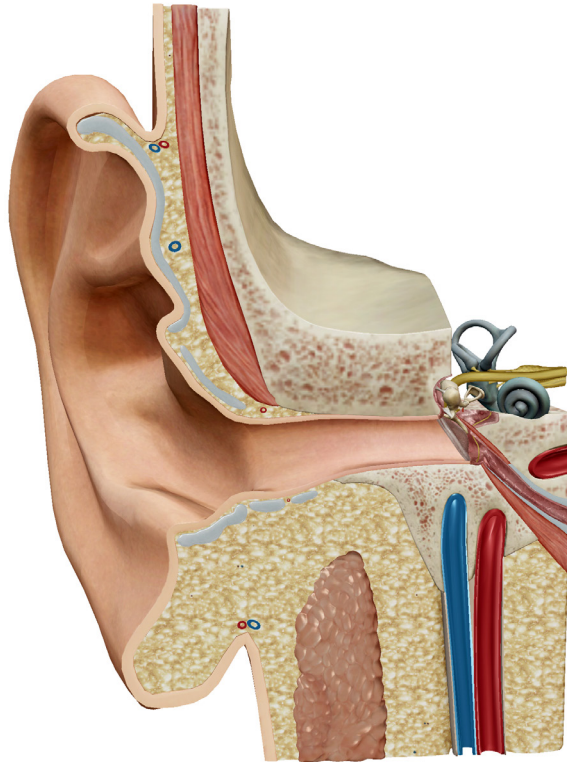
### **Activity 4: Anatomy of the Eye and Ear Lab**

#### **1. Launch the view!**

- If you're already in AR mode: point your camera at the image below.
- If you're not in AR mode:
  - Open Visible Body Suite.
  - Search for and select the view "Ear."
  -  **Launch AR mode.**

#### **2. Fill in the blanks.**

- Find the structures listed in the word bank.
- Read the definitions, then fill in the blanks with the correct ear structures from the word bank.



Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Word bank:**

- Auricle
- Cochlea
- External acoustic meatus
- Incus
- Inner ear
- Malleus
- Middle ear
- Outer ear
- Oval window
- Semicircular canals
- Stapes
- Tympanic membrane
- Vestibule

The \_\_\_\_\_, known as the “stirrup,” is one of the auditory ossicles of the middle ear. It plays a key role, with the malleus and incus, in transferring vibrations from the tympanic membrane to the oval window to facilitate hearing.

The \_\_\_\_\_ funnels sound waves. It consists of the auricle and the external acoustic meatus. It is the outermost section of the ear.

The \_\_\_\_\_ is a spiral-shaped structure of the inner ear that looks like a shell. When it receives movement from the three auditory ossicles, fluid inside it moves. These fluid waves move hair cells, which activates nervous system receptors. Signals travel to the brain, where they are interpreted as sound.

The \_\_\_\_\_ is a passageway from the bottom of the concha to the tympanic membrane. It forms an S-shaped curve.

The \_\_\_\_\_ contains fluid-filled canals that contribute to hearing and balance. It’s the innermost part of the ear and contains two types of labyrinths: A bony labyrinth with a series of cavities, including the semicircular canals and the vestibule, and a membranous labyrinth.

The \_\_\_\_\_ contains three auditory ossicles, the malleus, incus, and stapes.

The \_\_\_\_\_, known as the “hammer,” is one of the auditory ossicles of the middle ear. It plays a key role in transferring vibrations from the tympanic membrane to the incus to facilitate hearing.

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The \_\_\_\_\_ is composed of a curved helix and an inferior part called the lobule.

\_\_\_\_\_ provide sensory input for equilibrium. There are three of these in the inner ear: superior, posterior, and lateral. Each of these has an expansion at one end, called the ampulla, which contains fluid known as endolymph. As the head rotates or moves, the movement of the endolymph causes hair cells to bend, generating nerve impulses.

The \_\_\_\_\_, known as the "anvil," is one of the auditory ossicles of the middle ear. It plays a key role, with the malleus, in transferring vibrations from the tympanic membrane to the stapes to facilitate hearing.

The \_\_\_\_\_, also known as the ear drum, is a thin, nearly oval membrane. When sound waves strike this structure, it creates vibrations that travel to the bones of the middle ear to facilitate hearing.

The \_\_\_\_\_ is the central part of the bony labyrinth of the inner ear.

The \_\_\_\_\_ is an opening that leads from the middle ear to the vestibule of the inner ear. Vibrations, transferred from bone to bone in the middle ear, hit this membrane, causing it to vibrate and build pressure waves in the cochlea. This begins a process that generates nerve impulses.