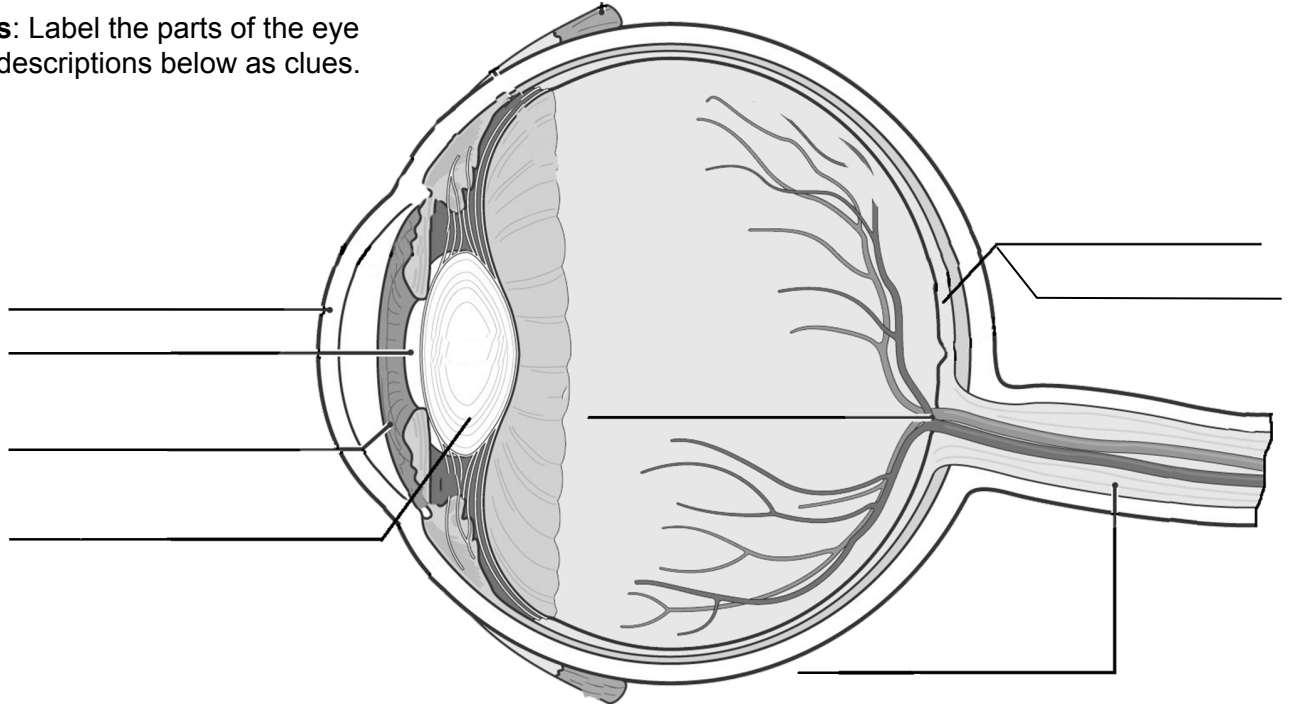


PARTS OF THE EYE

Directions: Label the parts of the eye using the descriptions below as clues.

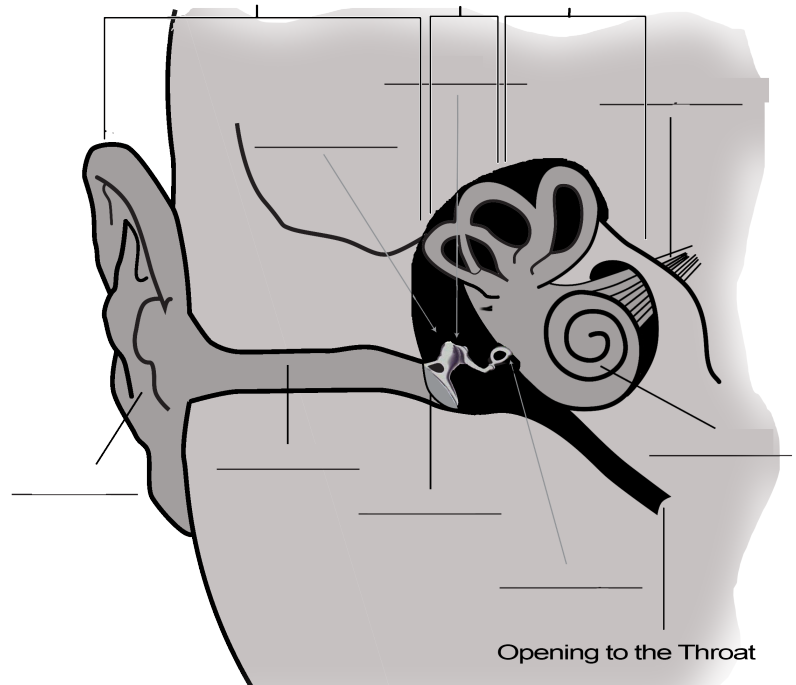


| | | | |
|-------|------------|-------------|----------------|
| Iris | Blind spot | optic nerve | retina |
| pupil | lens | cornea | photoreceptors |

- A. **Iris** is the colored part of the eye. Although it might seem purely cosmetic, the iris actually functions to adjust the size of the pupil. It has muscles that contract or expand depending on the amount of light the pupil needs to process images.
- B. **Blind Spot/Optic Disc** is an area where the optic nerve leaves the eye. In this area of the retina, there are no photo receptors causing a blind spot in every eye.
- C. **Lens** exists behind the pupil and is responsible for allowing your eyes to focus on small details like words in a book. The lens is in a constant state of adjustment as it becomes thinner or thicker to accommodate the detailed input it receives. With age, the lens loses a lot of its elasticity which often results in cataracts and presbyopia because the lens cannot adjust as well to its surroundings as it used to.
- D. **Retina** is the area at the back of the eye that receives the refined, visual message from the front of the eye, and it transmits that visual message to the brain using electrical signals.
- E. **Cornea** is the outermost layer of the eye and is primarily responsible for focusing the light that comes into our eyes. There are 5 layers to the cornea. The outer layer acts as a kind of shield to the elements and can usually repair itself within a few days of suffering a minor injury. The deeper layers exist mainly to strengthen the eye.
- F. **Optic Nerve** carries neural impulses from the retina to the occipital nerve of the brain.
- G. **Pupil** is the black circle in the center of the eye, and its primary function is to monitor the amount of light that comes into the eye. When there is a lot of light, the pupil contracts to keep the light from overwhelming the eye. When there is very little light, the pupil expands so it can soak up as much as possible.
- H. **Photoreceptors** are located in the retina and consist of the rods and cones. Through a process called transduction. **Transduction** is the process of light being absorbed and transformed into the electrochemical signals used by the nervous system.

PARTS OF THE EAR

Directions: Label the parts of the ear using the descriptions below as clues.

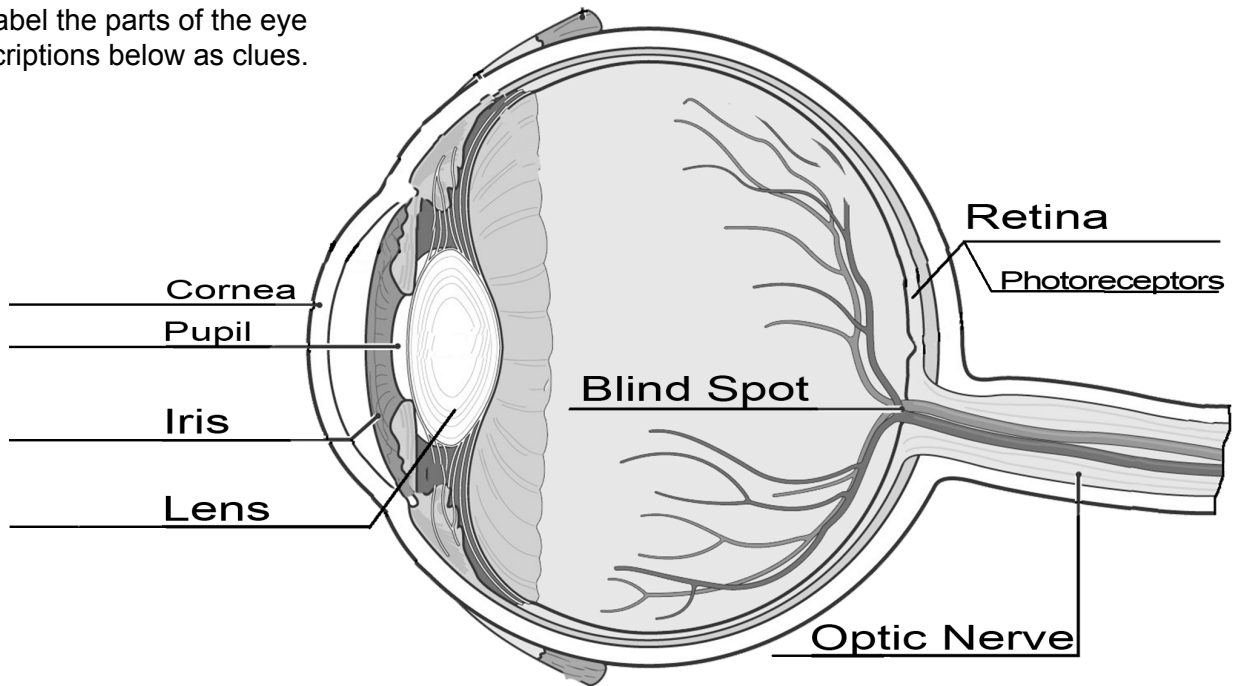


| | | | | | |
|------------|---------|-----------|-----------|---------|----------------|
| Inner Ear | Cochlea | Outer Ear | Ear Canal | Pinna | Auditory Nerve |
| Middle Ear | Anvil | Eardrum | Hammer | Stirrup | |

- A. **Inner Ear** When the stapes moves, it pushes the oval window, which then moves the cochlea. The cochlea takes the fluid vibration of sounds from the surrounding semicircular ducts and translates them into signals that are sent to the brain by nerves like the vestibular nerve and cochlear nerve
- B. **Cochlea** is a small, curled tube in the inner ear. The cochlea is filled with liquid, which is set into motion, like a wave, when the ossicles vibrate. Vibrations (sound) cause tiny hairs on the cells to move, creating nerve signals that the brain understands as sound.
- C. **Outer Ear** part of the ear collects sound and funnels that sound into the middle ear. Sound travels through the auricle and the auditory canal, a short tube that ends at the eardrum.
- D. **Ear Canal** The ear canal directs the sound to the middle ear. It's located between our floppy ears and our ear drum.
- E. **Pinna** This is the part of the ear that people can see. The main job of the outer ear is to collect sounds, whether they're your friend's whispers or a barking dog.
- F. **Auditory Nerve** carries neural impulses from the cochlea to the brain.
- G. **Middle Ear** consists of an air-filled space between the tympanic membrane(ear drum) and the inner ear that contains three tiny bones linked together causes the eardrum and ossicles in the middle ear to vibrate. As it travels, it amplifies (becomes louder) and changes from air to liquid..
- H. **Anvil** (AKA incus) a tiny bone that passes vibrations from the hammer to the stirrup.
- I. **Eardrum** - (AKA tympanic membrane) a thin membrane located at the end of the ear canal that vibrates when sound waves reach it.
- J. **Hammer** (also called the malleus) a tiny bone that passes vibrations from the eardrum to the anvil.
- K. **Stirrup** - (also called the stapes) a tiny, U-shaped bone that passes vibrations from the stirrup to the cochlea. This is the smallest bone in the human body

PARTS OF THE EYE

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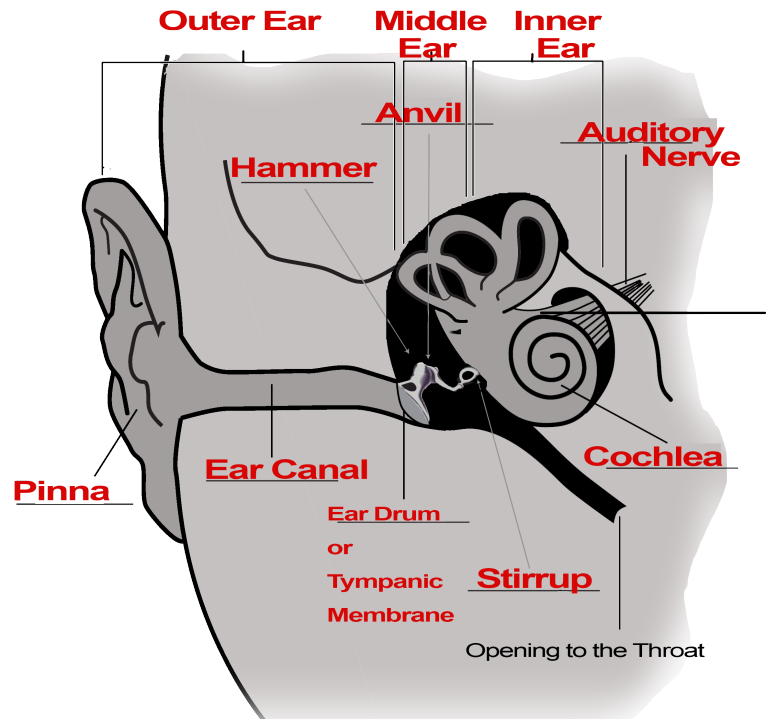


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