

**Worksheet: The Ear**

A. Match the description in column A with the correct part of the ear from Column B by writing the correct letter on the line. Each correct response is worth 1 point. *Some responses are used more than once.*

| Column A                                                                    | Column B               |
|-----------------------------------------------------------------------------|------------------------|
| 1 _____ Collects sound waves and directs them into the ear                  | A Auditory nerve       |
| 2 _____ Helps the body to maintain balance                                  | B Cochlea              |
| 3 _____ These are the smallest bones in the human body                      | C Ear canal            |
| 4 _____ Separates the outer ear and the middle ear                          | D Eustachian tube      |
| 5 _____ Helps to balance air pressure in the ear                            | E Ossicles             |
| 6 _____ Contains fluid and sensory cells that detect vibrations             | F Pinna                |
| 7 _____ Contains cells that produce a bitter tasting wax                    | G Semi-circular canals |
| 8 _____ Carries the message of the vibrations to the brain                  | H Tympanic membrane    |
| 9 _____ Structure found in the middle ear that connects to the nasal cavity |                        |
| 10 _____ Helps to amplify the sound vibrations                              |                        |

B. The steps describe how you come to hear the sound of a plucked guitar string. Place these steps in order by writing a number (from 2 through 9) on the line of the next step in the hearing process. The first step has been done for you.

- a. \_\_\_\_\_ The vibrating air travels in a wave-like pattern to your ear.
- b. \_\_\_\_\_ The stirrup bone taps against a membrane on the opening to the inner ear, causing the cochlea to vibrate.
- c. **1** \_\_\_\_\_ The guitar string is plucked, causing it to vibrate.
- d. \_\_\_\_\_ The sound waves cause the ear drum to vibrate.
- e. \_\_\_\_\_ As it vibrates, nerve endings in the cochlea are stimulated, sending nerve impulses along the auditory nerve to the brain.
- f. \_\_\_\_\_ The vibration of the string causes air particles surrounding it to begin vibrating also.
- g. \_\_\_\_\_ The vibrations from the eardrum travel along three small bones: the hammer, the anvil and the stirrup.
- h. \_\_\_\_\_ The pinna collects the sound waves and funnels them down the ear canal to your ear drum.
- i. \_\_\_\_\_ The brain interprets the impulses to determine the type of sound.

C. The diagram below shows a human ear. Label the diagram by dragging the word to the part it matches on the diagram.

Anvil

Auditory nerve

Cochlea

Ear Canal

Ear drum

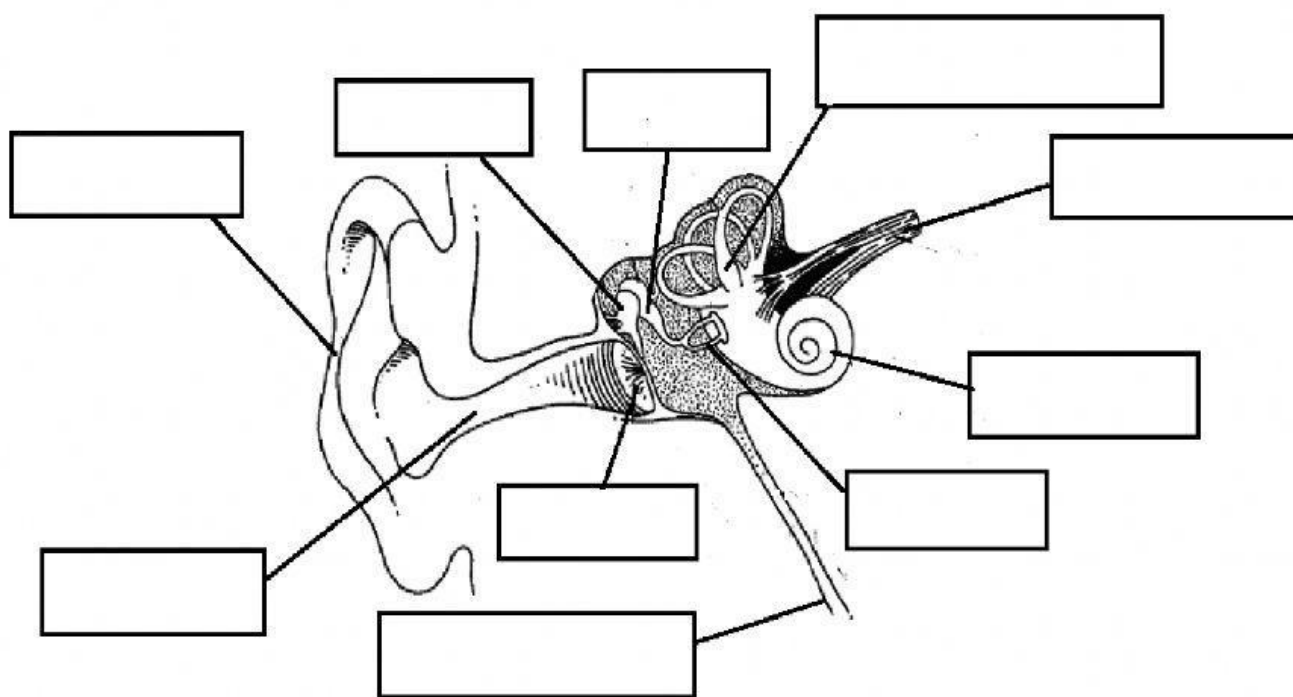
Eustachian tube

Hammer

Pinna

Semi-circular canals

Stirrup



D. Match each description in Column A with the correct word from Column B.  
Write the letter on the line next to the correct phrase.

Column A

Column B

- |   |       |                                                                               |   |               |
|---|-------|-------------------------------------------------------------------------------|---|---------------|
| 1 | _____ | Type of hearing loss caused by damage to the cochlea and or auditory nerve    | A | Conductive    |
| 2 | _____ | Sensation of moving that results in feelings of dizziness                     | B | Deafness      |
| 3 | _____ | Total loss of the ability to hear                                             | C | Hearing loss  |
| 4 | _____ | Buzzing or humming sounds heard by ear without any sound waves being produced | D | Sensorineural |
| 5 | _____ | A reduction in the ability to hear                                            | E | Tinnitus      |
| 6 | _____ | Type of hearing loss caused when sound waves are not transmitted properly     | F | Vertigo       |