

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

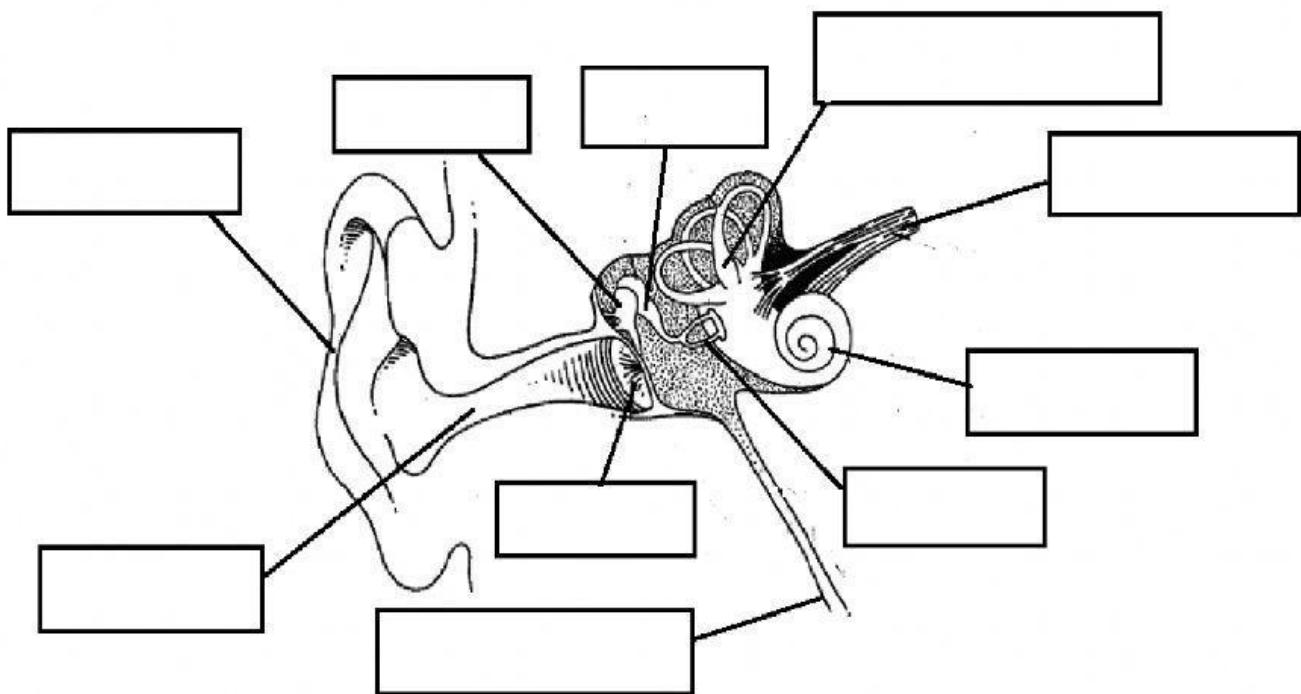
Eustachian tube

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