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|  **Label the Ear Anatomy Diagram** |

Sound is collected by the pinna (the visible part of the ear) and directed through the outer ear canal. The sound makes the eardrum vibrate, which in turn causes a series of three tiny bones (the hammer, the anvil, and the stirrup) in the middle ear to vibrate. The vibration is transferred to the snail-shaped cochlea in the inner ear; the cochlea is lined with sensitive hairs which trigger the generation of nerve signals that are sent to the brain.

Read the definitions below, then label the ear anatomy diagram.



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| **anvil** - (also called the incus) a tiny bone that passes vibrations from the hammer to the stirrup.**cochlea** - a spiral-shaped, fluid-filled inner ear structure; it is lined with cilia (tiny hairs) that move when vibrated and cause a nerve impulse to form.**eardrum** - (also called the tympanic membrane) a thin membrane that vibrates when sound waves reach it.**Eustachian tube** - a tube that connects the middle ear to the back of the nose; it equalizes the pressure between the middle ear and the air outside. When you "pop" your ears as you change altitude (going up a mountain or in an airplane), you are equalizing the air pressure in your middle ear.**hammer** - (also called the malleus) a tiny bone that passes vibrations from the eardrum to the anvil. | **nerves** - these carry electro-chemical signals from the inner ear (the cochlea) to the brain.**outer ear canal** - the tube through which sound travels to the eardrum.**pinna** - (also called the auricle) the visible part of the outer ear. It collects sound and directs it into the outer ear canal**semicircular canals** - three loops of fluid-filled tubes that are attached to the cochlea in the inner ear. They help us maintain our sense of balance.**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 (it is 0.25 to 0.33 cm long). |