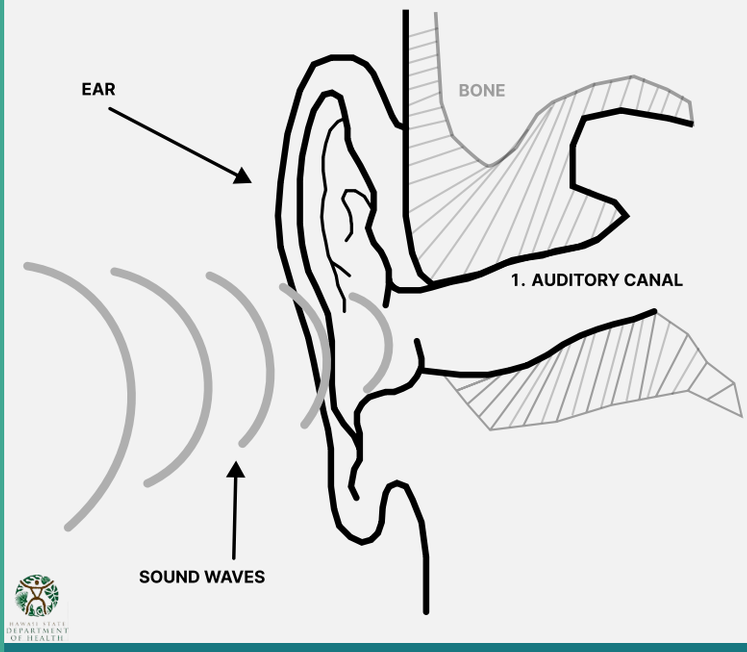
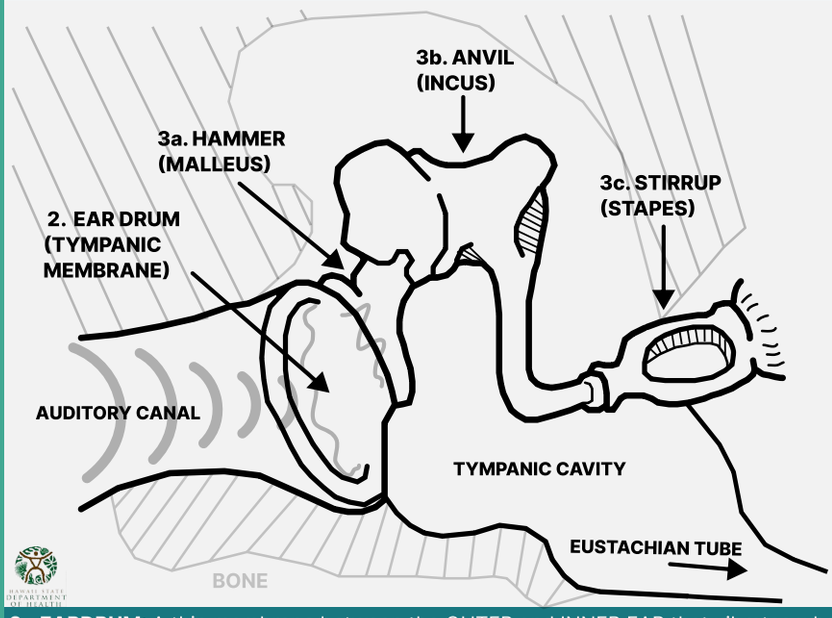
OUTER EAR



1. AUDITORY CANAL: This channels sound waves into the middle ear

NOTE: SOUND WAVES are not visible. They are shown in this diagram for illustrative purposes. This series of three diagrams is for educational purposes only and is not a substitute for professional medical consultations.

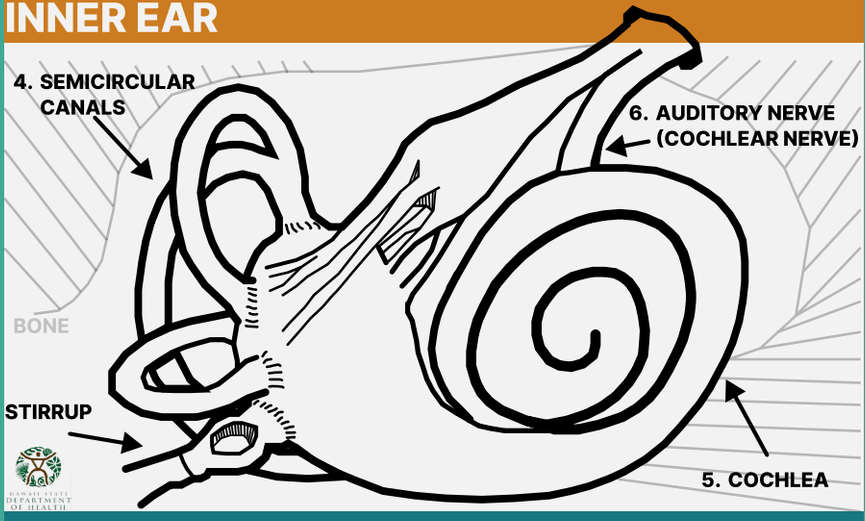
MIDDLE EAR



2. EARDRUM: A thin membrane between the OUTER and INNER EAR that vibrates when sound waves hit it upon arriving from the AUDITORY CANAL

3. a) HAMMER, b) ANVIL, & c) STIRRUP: 3 little bones that receive the vibrations from the EAR DRUM, start vibrating themselves, and then pass the vibrations to the INNER EAR

INNER EAR



4. SEMICIRCULAR CANALS: These structures control the sense of balance in the body and receive the sound energy vibrations from the MIDDLE EAR and pass it to the

5. COCHLEA: A spiral-shaped structure filled with fluid and lined on the inside with tiny, hair-like cells. Vibrations from the STIRRUP transfer the sound energy vibrations to the fluid. The fluid transfers the vibrations of the sound energy to the hair-like cells. Each of the hair-like cells are sensitive to a specific range of frequencies, that represent specific and different tones in the sound. As such, each hair-like cell vibrates at specific frequency ranges, which convert the mechanical sound energy into an electrical signal that gets passed on to the

6. AUDITORY NERVE: A nerve that carries the electrical signals from the inner ear to the brain via for analysis and interpretation as sound