

## The Marvelous Ear Quiz **Answers**

**1. How do humans hear sounds?**

**Using our ears, which have a fascinating set of bones and a fluid-filled structure, to determine sound types and sources.**

**2. How does human hearing work? Sketch and label the system.**

**Sound enters through the outer ear, is amplified by the middle ear, and then is converted into electrical impulses within the inner ear. Expect more details than the pre-activity quiz answers. Any student drawings that are similar to the following sketch are acceptable.**

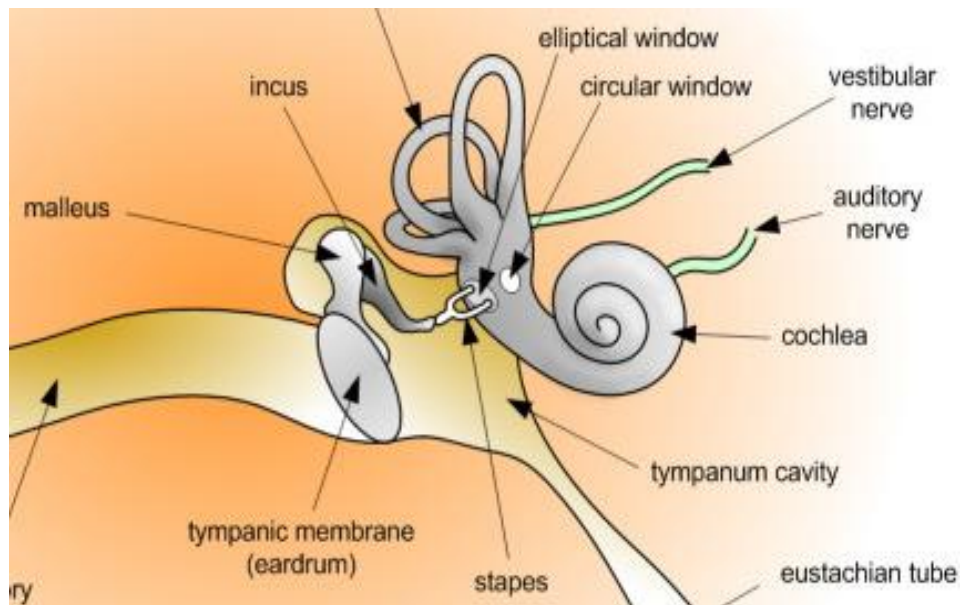


Image source: Dan Pickard, Wikimedia Commons {PD} <http://commons.wikimedia.org/wiki/File:HumanEar.jpg>

**3. What did you learn from the sound sensor activity?**

**Example answers:**

**Intensity of sound decreases with increasing distance.**

**NXT robot can determine intensity of sound, similar to our own ears.**

**Human hearing is a mechanical and electrical process.**