

LABORATORY EXERCISE 32
EAR AND HEARING

Figure Labels**FIG. 32.1**

- | | |
|------------------------|--------------------------------|
| 1. Auricle | 7. Vestibulocochlear nerve |
| 2. Malleus | 8. Oval window |
| 3. Incus | 9. Tympanic membrane (eardrum) |
| 4. Semicircular canals | 10. Auditory tube |
| 5. Stapes | 11. External acoustic meatus |
| 6. Cochlea | |

FIG. 32.2

- | | | |
|---|---|---|
| 4 | 5 | 1 |
| 6 | 3 | 2 |

FIG 32.3

- | | |
|--------------------------------|-----------------------------|
| 1. Tectorial membrane | 3. Branch of cochlear nerve |
| 2. Hair cells (receptor cells) | 4. Basilar membrane |

**Critical Thinking Application Answers**

The largest ear structure is the auricle which is able to trap and funnel a minute sound wave into the middle and inner ear structures. This will allow a concentration of the vibrations making the sound detection more likely to occur.

Laboratory Report Answers**PART A**

- | | | | |
|------|------|------|-------|
| 1. d | 4. h | 7. l | 10. f |
| 2. k | 5. c | 8. i | 11. a |
| 3. j | 6. b | 9. e | 12. g |

PART B (FIG. 32.8)

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|--------------------------------|---------------------|
| 1. Cochlear duct | 4. Basilar membrane |
| 2. Tectorial membrane | 5. Scala tympani |
| 3. Hair cells (receptor cells) | |

PART C

- | | |
|---------------------------|---------------------------|
| 1. (experimental results) | 3. (experimental results) |
| 2. (experimental results) | 4. Answers will vary. |