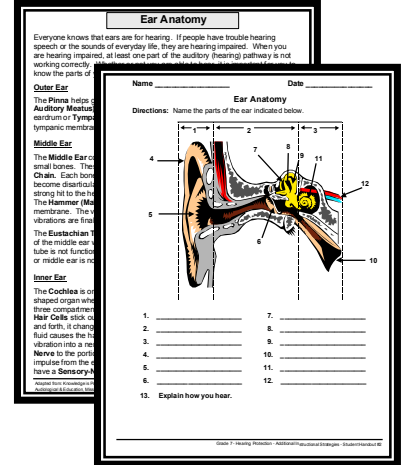


1. Ear Anatomy

This activity takes a close look at the anatomy of the ear.

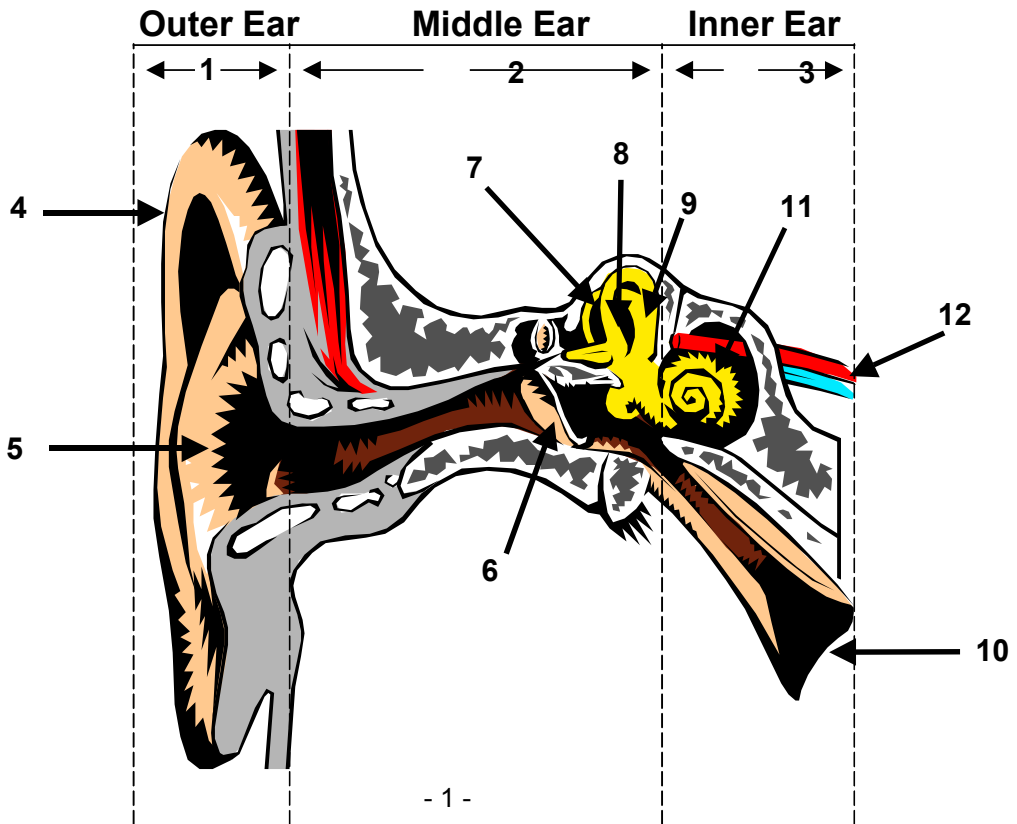
Distribute Student Handout #1 and 2 to students. Have students read and complete the worksheet, working individually, in pairs or small groups.



Review answers to worksheet with students.
Refer to answer key below.

Ear Anatomy - Answer Key

Directions: Name the parts of the ear pointed out below.



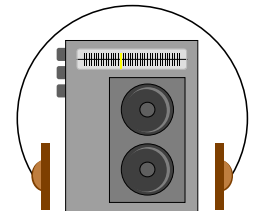
Ear Anatomy - continued

Ear Anatomy - Answer Key

1. Outer Ear
 2. Middle Ear
 3. Inner Ear
 4. Pinna
 5. Ear Canal (External Auditory Meatus)
 6. Eardrum (Tympanic Membrane)
 7. Hammer (Malleus)
 8. Anvil (Incus)
 9. Stirrup (Stapes)
 10. Eustachian Tube
 11. Cochlea
 12. Auditory Nerve
13. The **pinna** gathers sound and directs it down the **ear canal** toward the **eardrum**. Sound vibrations cause the **eardrum** to vibrate. These vibrations are picked up through the three small **bones (hammer, anvil, stirrup)**. As the **stirrup** vibrates, it changes the fluid pressure inside the **cochlea**. The change in fluid causes the **hair cells** to bend. The bending of the **hair cells** changes the vibration into a nerve impulse. The nerve impulse travels through the **auditory nerve** to the brain.

2. School Noise Awareness

Some areas in a school may be noisier than others (e.g. gymnasium, cafeteria, auditorium, playground). Raise student awareness by having them tape noise levels in different parts of the school and rating them (e.g. quiet, sometimes hard to hear, always hard to hear). Work in groups to map out findings and prepare a report. Present findings to class.



3. Hearing Protection Survey

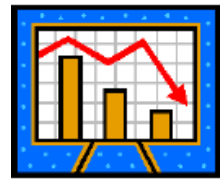
Students can survey the student population, teachers, family members and/or friends to collect data on who is noise exposed and whether they protect their hearing.

It may be interesting for students to compare results of adults versus students.

Have students prepare a short report that includes the data collected, a graph or chart of the survey results, an analysis of the results and students' concluding remarks or recommendations.

Follow-up class discussion could focus on findings, analysis of results and student remarks/recommendations.

Optional: Students could create a graph or chart of class survey results.



4. Poster Contest

Sponsor a poster contest within your class. Posters could follow the model of Hazard Recognition but with the hearing protection theme of:



See/Hear It (Recognize)



Think It (Evaluate)



Do It (Control)