



KIDS ARE LISTENING

Building Noise-Induced Hearing Loss Awareness in Children

The activities below help children develop an awareness of hearing and hearing loss. They are designed to be used by teachers, youth club leaders, school-age care staff or volunteers with children in grades three through six, but many activities may be adapted easily for use with younger or older children.

Additional information and activity ideas may be found on: www.nidcd.nih.gov/health/wise/.

Background Information on Noise-Induced Hearing Loss

Before presenting the activities, help the children understand that noise-induced hearing loss is real and how important it is for them to protect their ears.

Explain that 10 million Americans have already sustained noise-induced hearing loss, and as many as 30 million Americans are at risk. Let them know that individuals of all ages, including children, can develop hearing loss. Stress to the children that hearing loss is absolutely preventable. If they stay a safe distance away from the noise, avoid the noise entirely, or use proper protection such as special ear plugs or headsets, they can avoid being exposed to damaging noise.

Tell the children that inside the ears are little cells whose job it is to detect the vibrations in the air that make up sound. These cells turn the vibrations into little electrical impulses that get sent to the brain. This is how people hear, interpret sound and understand speech. These cells are exquisitely and very sensitive to damage from a number of sources – one of them being loud noises. Use a diagram or model of the ear to teach the names and functions of the parts of the ear – see the next page, or a diagram of the ear may be found at www.nidcd.nih.gov/health/wise/.

Provide concrete examples of what kind of noise is damaging and what kind of noise is okay. Use the Common Sounds Table on pages 35 as a reference.



Riddle:

***What is painless, odorless, tasteless, invisible
and toxic?***

Answer: Non-Induced Hearing Loss

Sounds and Vibrations

Place a transistor radio with the speaker facing up toward the ceiling. Cut a square of wax paper and place over the speaker. Sprinkle a small amount of salt on the wax paper. Turn on the radio and see the salt move. During the experiment change the station and volume to see what type of sounds make the salt move. This activity shows how the strength of vibrations and the volume of sound are related. The salt jumping off the wax paper occurred due to the pressure of sound waves. Sound waves vibrate the eardrum in much the same way.

Use Both Ears

Mark an "X" on the floor with tape or chalk. Measure out from the X straight lines in increments of approximately five feet (5, 10, 15, etc.). Label each line 1, 2, 3, 4, etc. Have one person-blindfolded stand on the X and another person stand on one of the lines away from the X. He or she says a name or makes some type of noise. The person on the X must identify on what line the other person is standing. Make it harder for the person on the X by changing lines. Explain that they need two ears to locate sounds. The brain uses the loudness of sounds and differences in time for sounds to reach each ear to make accurate determinations of sound locations.

Go on a Sound Safari Hunt

Walk in areas that comprise a variety of sounds. The goal is to concentrate on the number and types of sounds. List the sounds and sound levels (decibels).

Sound Experiments

Create an experiment to look into how sound affects on concentration. For example, have a group of young people do some math problems or memorize something in a noisy environment. Another group of young people completes the same activities in a quiet environment. Document what happened, and discuss how noise affects concentration.

Sponsor a Celebration of Sound Day

Invite an audiologist to conduct hearing screenings. Display a model of the ear and an explanation of how it works. Display earplugs and hearing aids with explanations. Display a chart of "Hearing Conservation Pointers."

Graffiti Board

Use one large piece of paper and lots of markers Draw and write about noise-induced hearing loss and/ good hearing conservation on the Graffiti Board.

News Clip Bulletin Board

Select stories, headlines, and pictures of current events from newspapers or the Internet that can be used to create a bulletin board or banner featuring everyday examples of environmental noise pollution.

American Sign Language Activity

