

The Importance of Having Two Ears

Lesson Plan

Grade Level: K-2

Curriculum Focus: Human Biology

Lesson Duration: One class period

Student Objectives

- Understand that having two ears—one on each side of our heads—helps us to perceive sound direction more accurately than if we had only one ear.

Materials

- Video on *unitedstreaming: The Fabulous Five: Our Senses*
Search for this video by using the video title (or a portion of it) as the keyword.

Selected clips that support this lesson plan:

- Our Sense of Hearing

Procedures

1. Conduct an experiment with your students to show how two ears allow us to perceive sound direction better than one.
2. Split the class into groups of five. In each group, have four students stand in a large circle around the fifth student.
3. Instruct the child in the middle to close his or her eyes and cover one ear.
4. One student in the circle should snap his or her fingers or clap hands several times.
5. See if the student in the center can determine who snapped by locating where the sound came from.
6. Then let the student try again, this time using both ears.
7. After they have taken turns in the middle, encourage students to conjecture about why two ears allow us to determine sound direction better than one ear.

Assessment

Use the following three-point rubric to evaluate students' work during this lesson.

- 3 points: Students worked cooperatively within their group; participated actively in class discussions.
- 2 points: Students work somewhat cooperatively within their group; participated in class discussions.

- 1 point: Students did not work well within their group; did not participate in class discussions.

Vocabulary

cochlea

Definition: A division of the bony inner ear that is usually coiled like a snail shell and is the seat of the hearing organ.

Context: When the little bones near the eardrum vibrate, they vibrate a spiral seashell bone called the cochlea.

eardrum

Definition: A membrane of thin skin that vibrates in response to sound waves, causing tiny bones in the middle ear to vibrate; separates the outer and middle ear.

Context: When sound waves enter your ear, they make your eardrums shake.

sense organ

Definition: An organ such as an eye or ear that receives messages from the world (such as light or sound) and transmit them to the brain

Context: Your skin is your largest sense organ, covering your entire body.

Academic Standards

National Academy of Sciences

The National Science Education Standards provide guidelines for teaching science as well as a coherent vision of what it means to be scientifically literate for students in grades K-12. To view the standards, visit <http://books.nap.edu>.

This lesson plan addresses the following science standards:

- Life Science: Structure and function in living systems

Mid-continent Research for Education and Learning (McREL)

McREL's Content Knowledge: A Compendium of Standards and Benchmarks for K-12 Education addresses 14 content areas. To view the standards and benchmarks, visit <http://www.mcrel.org/compendium/browse.asp>.

This lesson plan addresses the following national standards:

- Science – Life Science: Understands the structure and function of cells and organisms
 - Behavioral Studies: Understands that interactions among learning, inheritance, and physical development affect human behavior.
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Support Materials

Develop custom worksheets, educational puzzles, online quizzes, and more with the free teaching tools offered on the Discoveryschool.com Web site. Create and print support materials, or save them to a Custom Classroom account for future use. To learn more, visit

- <http://school.discovery.com/teachingtools/teachingtools.html>

