

# Unit 1



# The **Human Body**

# Lesson Plan #1A

## Correlation to Sunshine State Standards, Florida Comprehensive Assessment Test (FCAT) and English as a Second Language (ESOL).

### Health - Health Literacy

Standard 1: The student comprehends concepts related to health promotion and disease prevention (HE.A.1.2).

Benchmarks	Addressed in Unit(s)	FCAT Benchmark?
HE.A.1.2.1 Understands the functions of human body systems.	1A; 1B	No

### Science - Processes of Life

Standard 1: The student describes patterns of structure and function in living things (SC.F.1.2).

Benchmarks	Addressed in Unit(s)	FCAT Benchmark?
SC.F.1.2.1 Knows that the human body is made of systems with structures and functions that are related.	1A; 1B	Yes

### Science - Nature of Science

Standard 1: The student uses the scientific processes and habits of mind to solve problems (SC.H.1.2).

Benchmarks	Addressed in Unit(s)	FCAT Benchmark?
SC.H.1.2.5 Knows that a model of something is different from the real thing, but can be used to learn something about the real thing.	1A; 1B	Yes

Suggested ESOL Instructional Approach	Addressed in Unit(s)	ESOL Strategies	Addressed in Unit(s)
Total Physical Response	1A, 2C	Field Experiences	1A, 2C, 3B, 3C, 3G

The  
**Human  
Body**



# Instructional Lesson Plan #1A

Unit: **The Human Body**

Subject: **Hearing Loss Awareness**

Lesson Topic: **The Five Senses**

Time: **One 30-minute period**

Program Outcome(s)/Goal(s)/Expectation(s): **Students will demonstrate their ability to interpret and explain information generated by their exploration of scientific phenomena.**

Program Indicator(s): **Living things have special parts that allow them to do certain things.**

Student Outcome(s): **Students will identify the five senses. Students will try to identify objects with one or more of their five senses missing.**

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Context for Learning: The students should discuss that making observations is a large part of science. In order to make observations, they need to use their five senses: sight, hearing, smell, taste and touch.

The teacher will need the following materials:

- The Five Senses (Handout #1)
- A paper mystery bag with items to identify (Examples: soap, cotton, cinnamon, whistle)
- Learning Log (Handout #2)



# Instructional Delivery

## Opening Activities/Motivation

Tell students that today they will try to guess what is in the mystery bag by using some of their senses.

### Procedure

1. Read student outcome together.
2. Discuss how the five senses are useful to us.
3. Use Handout #1 to review the five senses. Ask students to predict how they would manage if one or more of their senses were missing.
4. Show the mystery bag and explain that they will take turns trying to guess each object in the bag. This could be done in cooperative groups.
5. When the activity is finished, ask students to complete the Learning Log (Handout #2) to explain how senses help us. They should include some explanation of how they would manage if one or more of their senses was missing.
6. Enrichment Activity: Show a video of your choice with no sound. Ask students to explain what could be done to make this easier to understand. Discuss closed captions (see Resource Page), and/or if possible, turn on that feature of the television.

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## Assessment/Evaluation

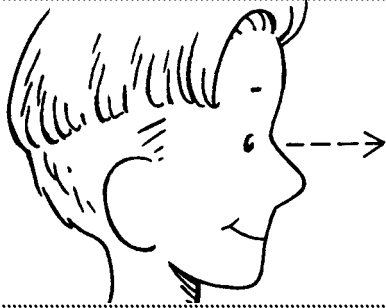
The Learning Log may be used to assess the students' knowledge of the five senses.

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## Closure

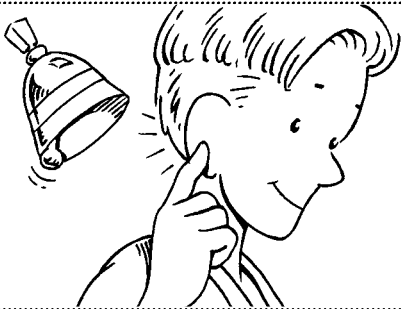
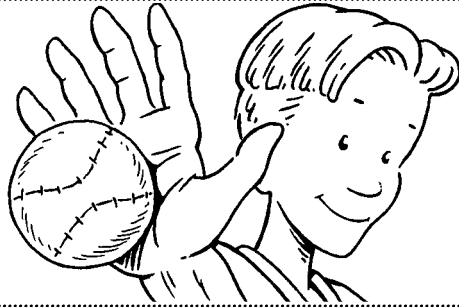
Instruct students to summarize what they learned about the five senses.





**SIGHT**

**TOUCH**



**HEARING**

**TASTE**



**SMELL**





# Lesson Plan #1B

## Correlation to Sunshine State Standards, Florida Comprehensive Assessment Test (FCAT) and English as a Second Language (ESOL).

<b>Science - Processes of Life</b>		
Standard 1: The student describes patterns of structure and function in living things (SC.F.1.2).		
<b>Benchmarks</b>	<b>Addressed in Unit(s)</b>	<b>FCAT Benchmark?</b>
SC.F.1.2.1 Knows that the human body is made of systems with structures and functions that are related.	1A; 1B	Yes

<b>Science - Nature of Science</b>		
Standard 1: The student uses the scientific processes and habits of mind to solve problems (SC.H.1.2).		
<b>Benchmarks</b>	<b>Addressed in Unit(s)</b>	<b>FCAT Benchmark?</b>
SC.H.1.2.5 Knows that a model of something is different from the real thing, but can be used to learn something about the real thing.	1A; 1B	Yes

<b>Health - Health Literacy</b>		
Standard 1: The student comprehends concepts related to health promotion and disease prevention (HE.A.1.2).		
<b>Benchmarks</b>	<b>Addressed in Unit(s)</b>	<b>FCAT Benchmark?</b>
HE.A.1.2.1 Understands the functions of human body systems.	1A; 1B	No

<b>Suggested ESOL Instructional Approach</b>	<b>Addressed in Unit(s)</b>	<b>ESOL Strategies</b>	<b>Addressed in Unit(s)</b>
Cognitive Academic Language Learning	1B, 1C, 1D, 2B, 2D, 3D, 3E	Asking higher and lower order questions;  Visuals	1B, 2B, 2D, 3E;  1B, 1D, 2A



# Instructional Lesson Plan #1B

Unit: **The Human Body**

Subject: **Hearing Loss Awareness**

Lesson Topic: **Parts of the Ear/Causes of Hearing Loss**

Time: **One 45-minute period**

Program Outcome(s)/Goal(s)/Expectation(s): **Students will demonstrate the ability to employ the language, instruments, methods and materials of science for collecting, organizing, interpreting and communicating information.**

Program Indicator(s): **Living things have special parts that allow them to do certain things.**

Student Outcome(s): **Students will identify and label parts of the ear and explain the causes of hearing loss.**

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Context for Learning: Students must understand that a system has parts that work together. The ear is a system within the human body. Discuss examples of other systems within the body such as the eye, heart, and brain.

The teacher will need the following materials:

- Model of the ear (if available)
- Parts of the Ear (Handout #1) and (Transparency #1)
- Answer Key for Parts of the Ear (Teacher Resource Sheet)
- How We Hear - (Handout #2) and (Transparency #2)
- Major Causes of Hearing Loss (Handout #3) and (Transparency #3)
- Activity Questions (Handout #4)
- Cotton balls





# Instructional Delivery

## Opening Activities/Motivation

Tell students that today they will try to experience what it is like to have a hearing loss. Have them put cotton in their ears and listen to a short story. Speak very softly when telling the story. Ask children to answer some questions about the story. Discuss why they missed some of the story and how they felt about missing some of the words.

## Procedure

1. Read student outcome together.
2. Discuss how the ear works as a system.
3. Use Overhead Transparency and Handout #1, Parts of the Ear, to show the parts of the ear. Have students label each part as it is discussed. Show the parts on the model of the ear, if available.
4. Ask students what would happen if a part of the ear did not work.
5. Use Overhead Transparency and Handout #2, How We Hear, to discuss symptoms of hearing loss. Relate them to the earlier experiment with the short story and the cotton in their ears.
6. Use Overhead Transparency and Handout #3, and Major Causes of Hearing Loss, to discuss causes of hearing loss.

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## Assessment/Evaluation

Have students answer Activity Questions (Handout #4).

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## Closure

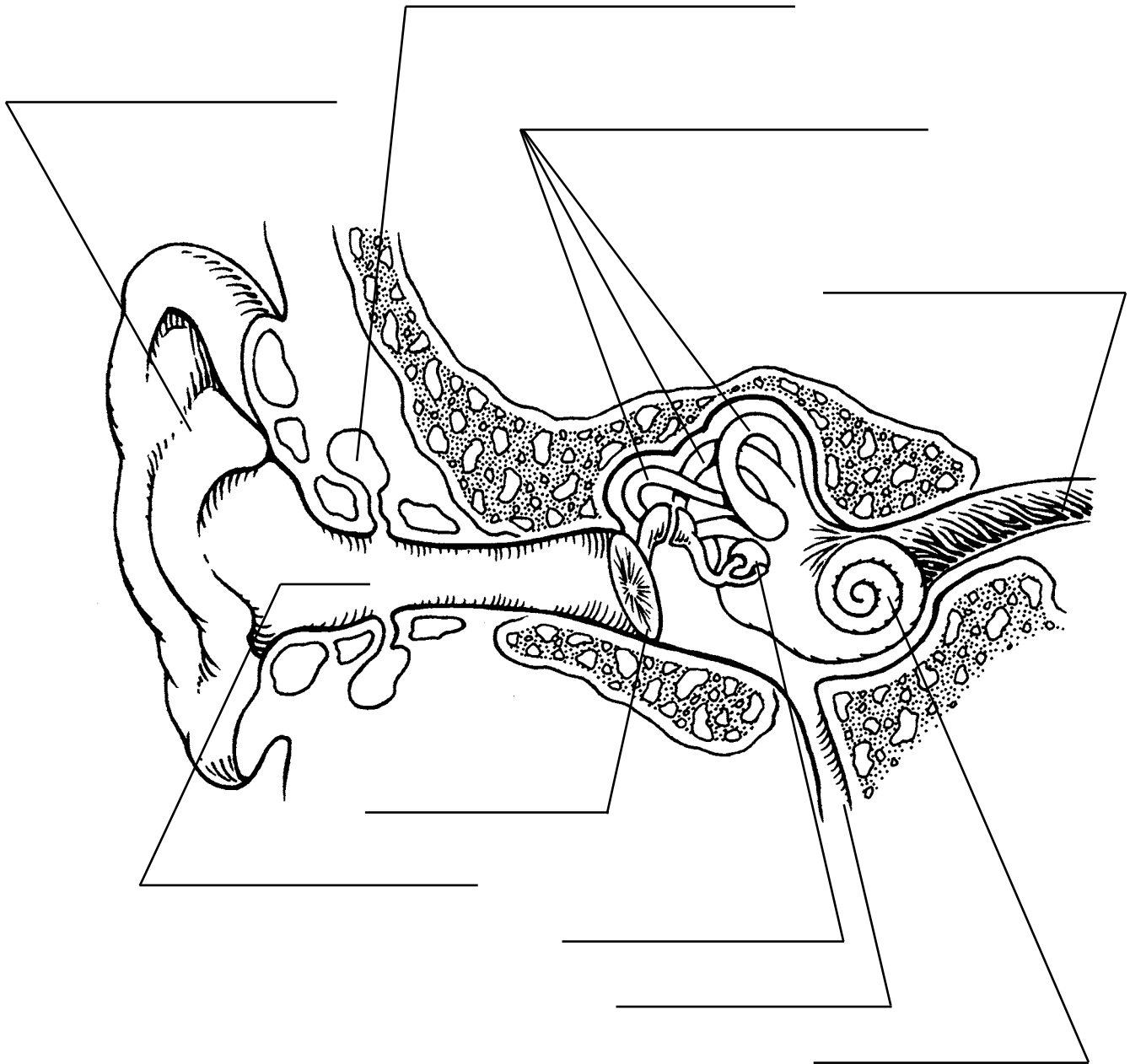
Summarize what students learned about the human ear and how it works as a system. Review the leading causes of hearing loss.

# Overhead Transparency #1

## Parts of the Ear

Please label the parts of the ear.

Name: \_\_\_\_\_



### Word Bank

auditory canal  
semicircular canals  
pinna (outer ear)  
oval window

auditory nerve  
eardrum  
cochlea  
eustachian tube

wax gland

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# Handout #1

## Parts of the Ear

Please label the parts of the ear.

Name: \_\_\_\_\_



### Word Bank

auditory canal  
semicircular canals  
pinna (outer ear)

oval window  
auditory nerve  
eardrum

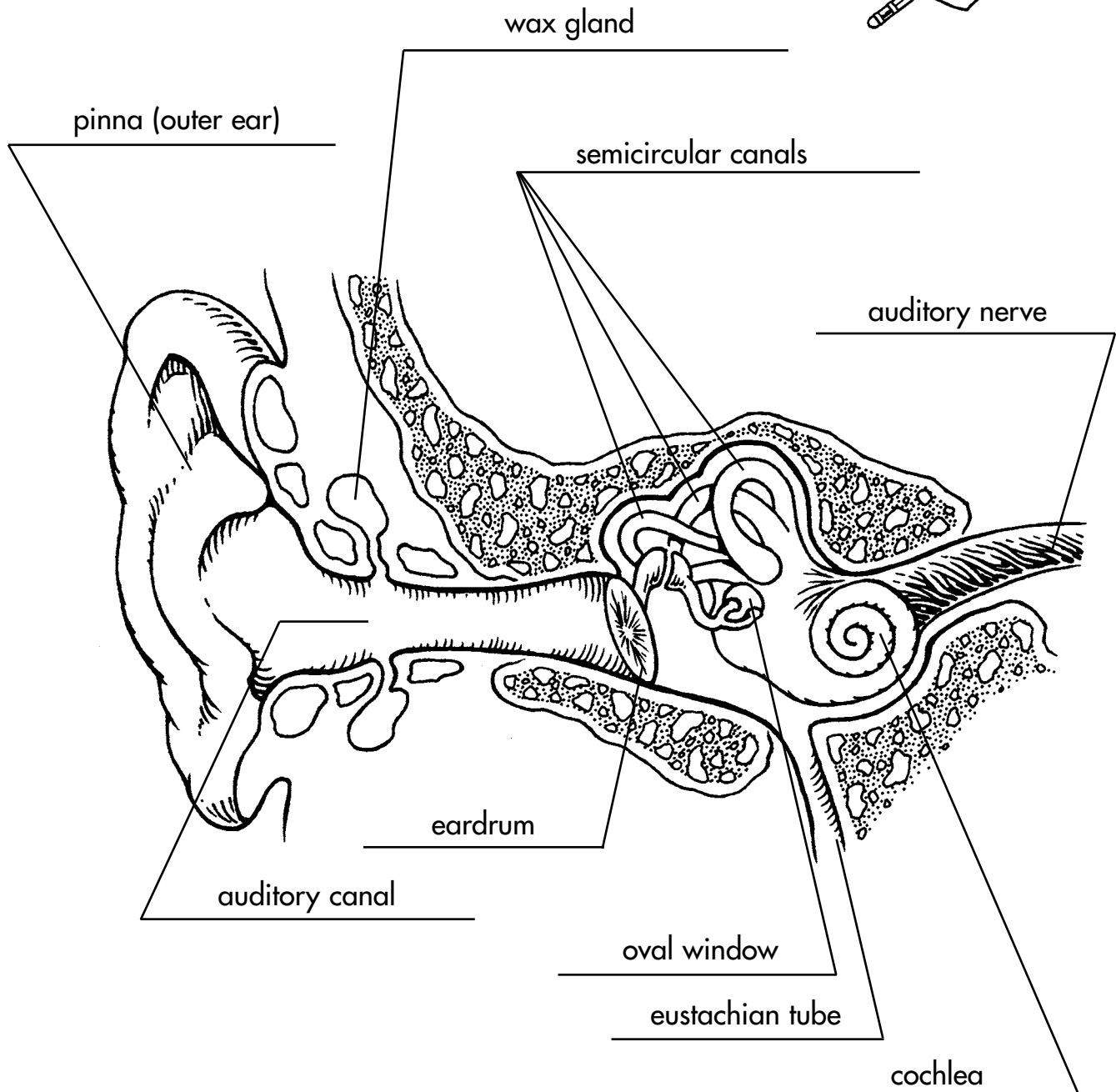
cochlea  
eustachian tube  
wax gland

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# Parts of the Ear ANSWER KEY

Teacher  
Resource  
Sheet



## Word Bank

auditory canal  
semicircular canals  
pinna (outer ear)

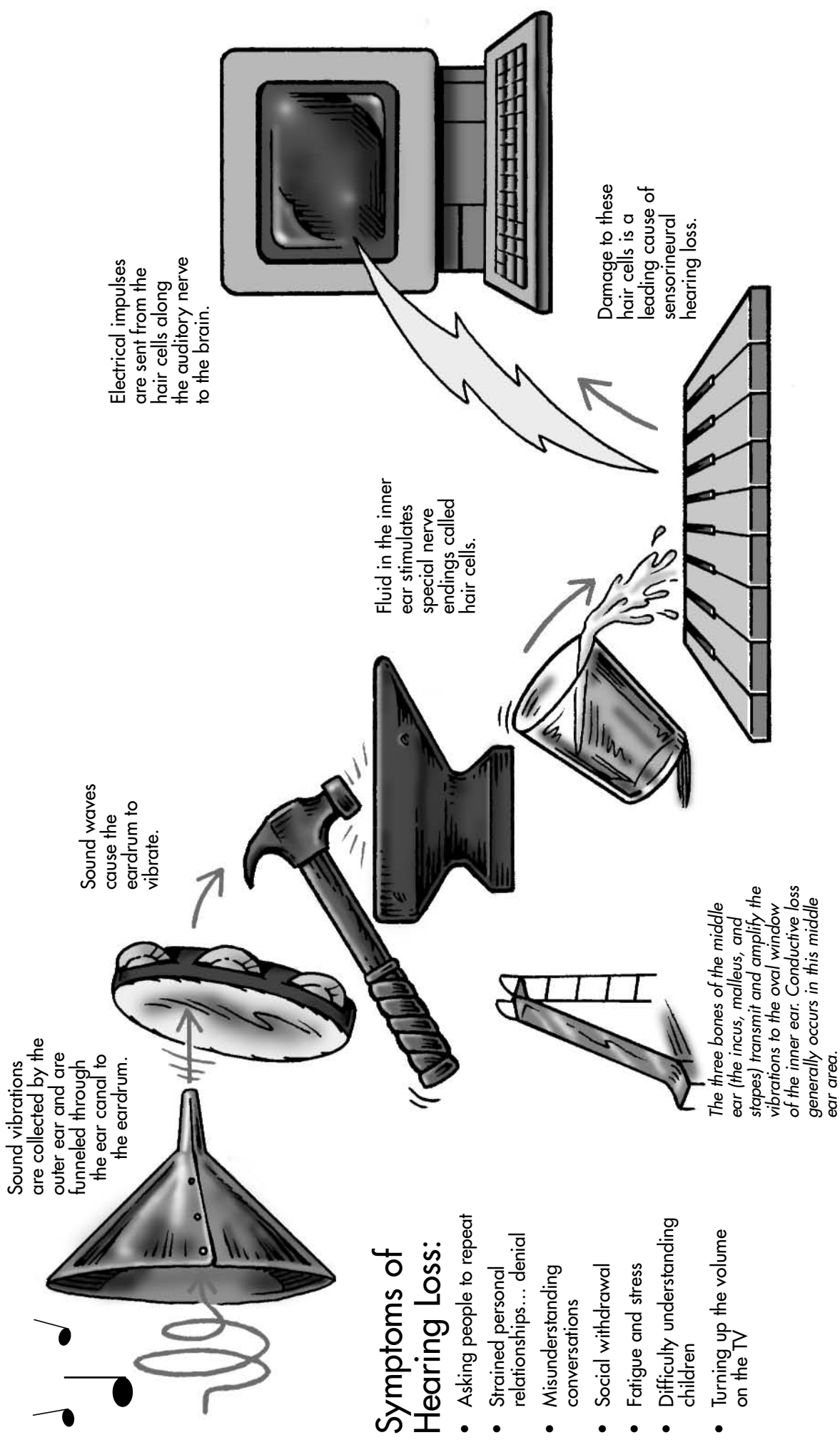
oval window  
auditory nerve  
eardrum

cochlea  
eustachian tube  
wax gland

The  
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Body**



# How We Hear

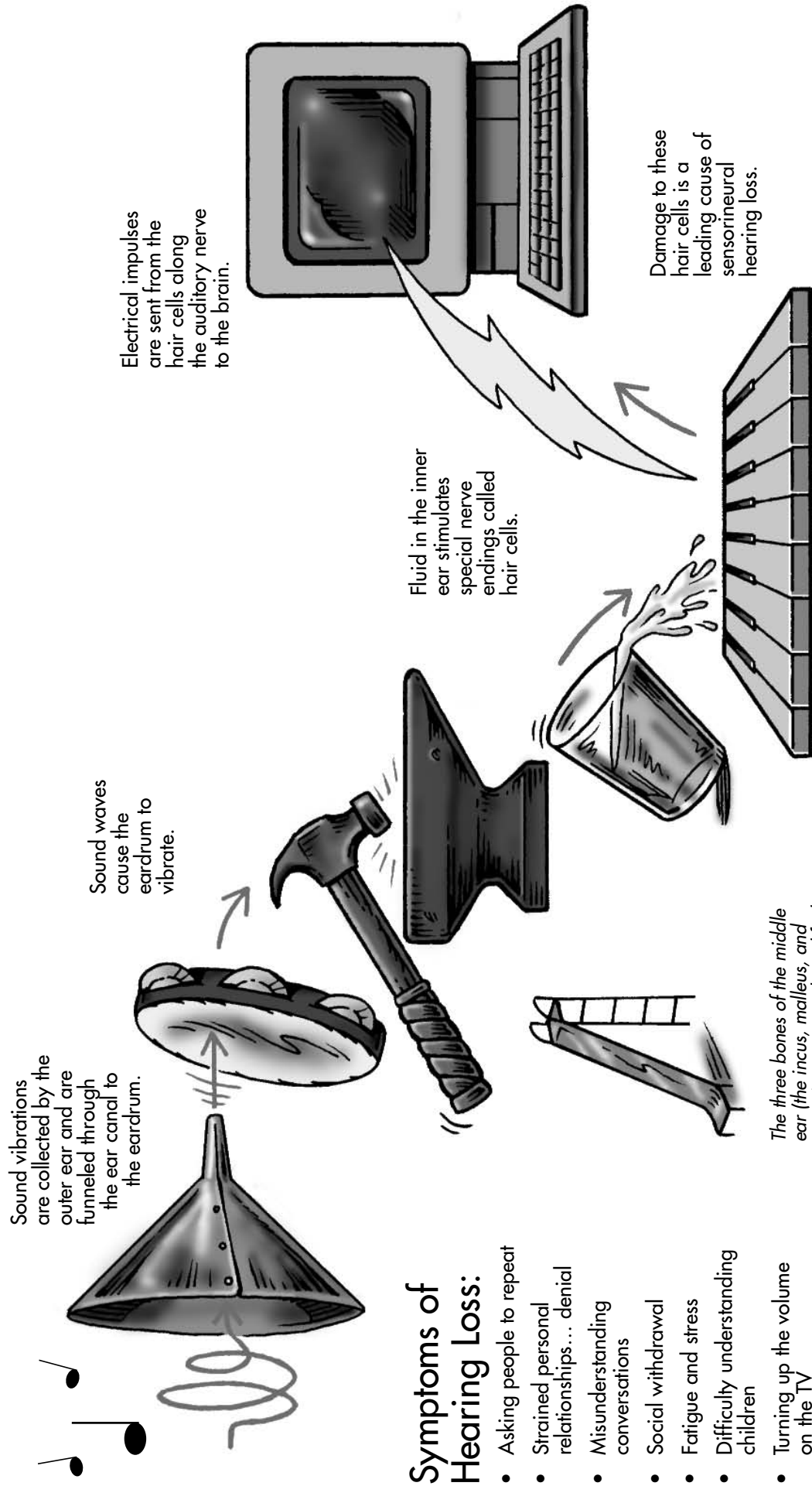


## Symptoms of Hearing Loss:

- Asking people to repeat
- Strained personal relationships... denial
- Misunderstanding conversations
- Social withdrawal
- Fatigue and stress
- Difficulty understanding children
- Turning up the volume on the TV

# Handout #2 Patient Ear Chart

# How We Hear



## Symptoms of Hearing Loss:

- Asking people to repeat
- Strained personal relationships... denial
- Misunderstanding conversations
- Social withdrawal
- Fatigue and stress
- Difficulty understanding children
- Turning up the volume on the TV

# Major Causes of Hearing Loss

## Adults

- Excessive noise exposure
- Presbycusis-aging process
- Tumors and other space occupying lesions
- Vascular and circulatory disorders
- Heredity

## Other

- Bacterial Meningitis
- Head trauma
- Otoxic medications
- Childhood infectious diseases (mumps, measles)

## Children

### Middle Ear Problems

- Before age six, 90% of all children in the United States will suffer from Otitis Media (ear infection).

### Congenital

- Craniofacial Anomalies
- Family history of hearing loss
- Congenital infections

# Major Causes of Hearing Loss

## Adults

- Excessive noise exposure
- Presbycusis-aging process
- Tumors and other space occupying lesions
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- Heredity

## Other

- Bacterial meningitis
- Head trauma
- Otoxic medications
- Childhood infectious diseases (mumps, measles)

## Children

### Middle Ear Problems

- Before age six, 90% of all children in the United States will suffer from Otitis Media (ear infection).

### Congenital

- Craniofacial anomalies
- Family history of hearing loss
- Congenital infections



# Handout #4 Activity Questions

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. Explain how the ear is a system and what would happen if one part did not work. Use correct terminology with the help of your handouts.

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2. Explain one leading cause of hearing loss.

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3. Describe what it was like when you could not hear well. Include specific details in your description.

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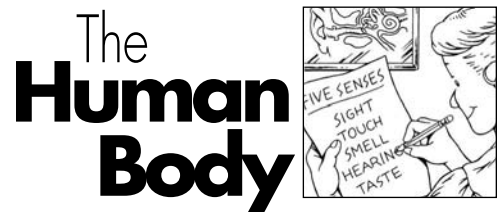
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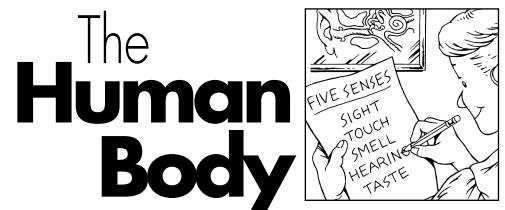
# Lesson Plan #1C

## Correlation to Sunshine State Standards, Florida Comprehensive Assessment Test (FCAT) and English as a Second Language (ESOL).

<b>Language Arts - Reading</b>		
Standard 2: The student constructs meaning from a wide range of texts (LA.A.2.2).		
<b>Benchmarks</b>	<b>Addressed in Unit(s)</b>	<b>FCAT Benchmark?</b>
LA.A.2.2.1 Reads text and determines the main idea or essential message, identifies relevant supporting details and facts, and arranges events in chronological order.	1C; 1D; 2A; 2B; 2C; 3A; 3B; 3E	Yes
LA.A.2.2.2 Identifies the author's purpose in a simple text.	1C; 1D; 2A; 2B; 2C; 3E	Yes
LA.A.2.2.5 Reads and organizes information for a variety of purposes, including making a report, conducting interviews, taking a test, and performing an authentic task.	1C; 1D; 2A; 2B; 2C; 3A; 3E	No
LA.A.2.2.7 Recognizes the use of comparison and contrast in a text.	1C; 1D; 2B	Yes

<b>Language Arts - Literature</b>		
Standard 2: The student responds critically to fiction, nonfiction, poetry, and drama (LA.E.2.2).		
<b>Benchmarks</b>	<b>Addressed in Unit(s)</b>	<b>FCAT Benchmark?</b>
LA.E.2.2.4 Identifies the major theme in a story or nonfiction text.	1C; 1D; 2A; 2C	No
LA.E.2.2.5 Forms his or her own ideas about what has been read in a literary text and uses specific information from the text to support these ideas.	1C; 1D; 2C	No

<b>Suggested ESOL Instructional Approach</b>	<b>Addressed in Unit(s)</b>	<b>ESOL Strategies</b>	<b>Addressed in Unit(s)</b>
Cognitive Academic Language Learning	1B, 1C, 1D, 2B, 2D, 3D, 3E	Cooperative Learning;  Jigsawing	1C, 3A, 3B, 3D  1C



# Instructional Lesson Plan #1C

Unit: **The Human Body**

Subject: **Hearing Loss Awareness**

Lesson Topic: **Hearing Aids**

Time: **One-hour period**

Program Outcome(s)/Goal(s)/Expectation(s): **Students will demonstrate the ability to interpret information by interacting with a text.**

Program Indicator(s): **Students will demonstrate the ability to acquire interpretation skills when reading to be informed.**

Student Outcome(s): **Students will read to be informed and report information by using the cooperative learning strategy called Jigsaw.**

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Context for Learning: The students have been studying how technology has helped improve hearing. Today they will read about hearing aids and work in cooperative groups. Each group will be responsible for reading one section about hearing aids and reporting what they learn to the whole class. The class will listen and complete a TABA chart.

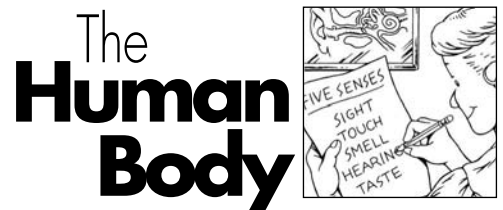
The teacher will need the following materials:

Articles about hearing aids (Handouts #1, #2, #3, and #4)

Worksheet for group notes (Handout #5 – This could be a transparency for each group)

TABA chart (Handout #6)

Group Roles Transparency (Teacher Resource Sheet)



# Instructional Delivery

## Opening Activities/Motivation

Explain to the students that today they will be using the cooperative learning strategy called Jigsaw. It will save a lot of time and each group will be experts on a particular subject. Then, group members will report to the class what they have learned. At this time, explain and assign roles. (Teacher Resource Sheet)

## Procedure

1. Read the student outcome together.
2. Give each group their assignment and note-taking sheet. (Handouts #1, #2, #3 and #4)
3. The reader should read the selection to the group.
4. The group should discuss important points to report to the class and the recorder should write each point on the note-taking sheet. (Handout #5)
5. Each group will report important information from their text to the entire class.
6. All students should complete the TABA chart on hearing aids. (Handout #6)

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## Assessment/Evaluation

The teacher may collect the Closure Activity. A listening and speaking grade also can be given while the groups are reporting.

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## Closure

Have students write three things they learned about hearing aids.



## Digital Hearing Aids

Digital hearing aids are made with a microchip inside of them and are programmed by computer. Once the hearing aid is disconnected from the computer, the hearing aid responds to multiple sounds and adapts to a large number of listening environments. Here's how a digital hearing aid works: the sound wave enters a microphone in the hearing aid, and the sounds translated into a series of numbers. A special processor in the hearing aid then performs many mathematical calculations and helps keep the sounds within a patient's personal comfort zone. The digital signal is then fed into a receiver and into the ear as a clear sound.



## Disposable Hearing Aids

Disposable hearing aids, just like contact lenses, are virtually invisible once inserted into the ear. Their translucent shell shape blends into a variety of skin tones. This type of hearing aid is made with soft materials, and provides excellent sound quality. Users replace disposable hearing aids every 40 days with a fresh, new one. This eliminates the need for hearing aid repairs and hearing aid batteries.



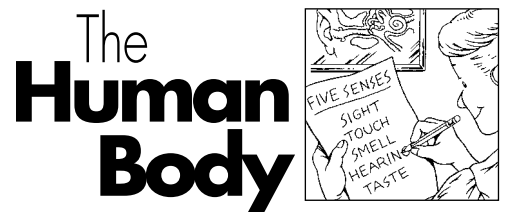
## Programmable Hearing Aids

A programmable hearing aid has digitally programmed instructions in its memory, inside the hearing aid. The hearing aid is specially programmed to respond to specific environments based on the results of the user's hearing test. Once programmed, the hearing aid can easily be readjusted, fine-tuned or even replaced in the event that a person's hearing needs change. This hearing aid offers a better way to accommodate an individual's hearing needs, allowing the greatest flexibility of all hearing aids.



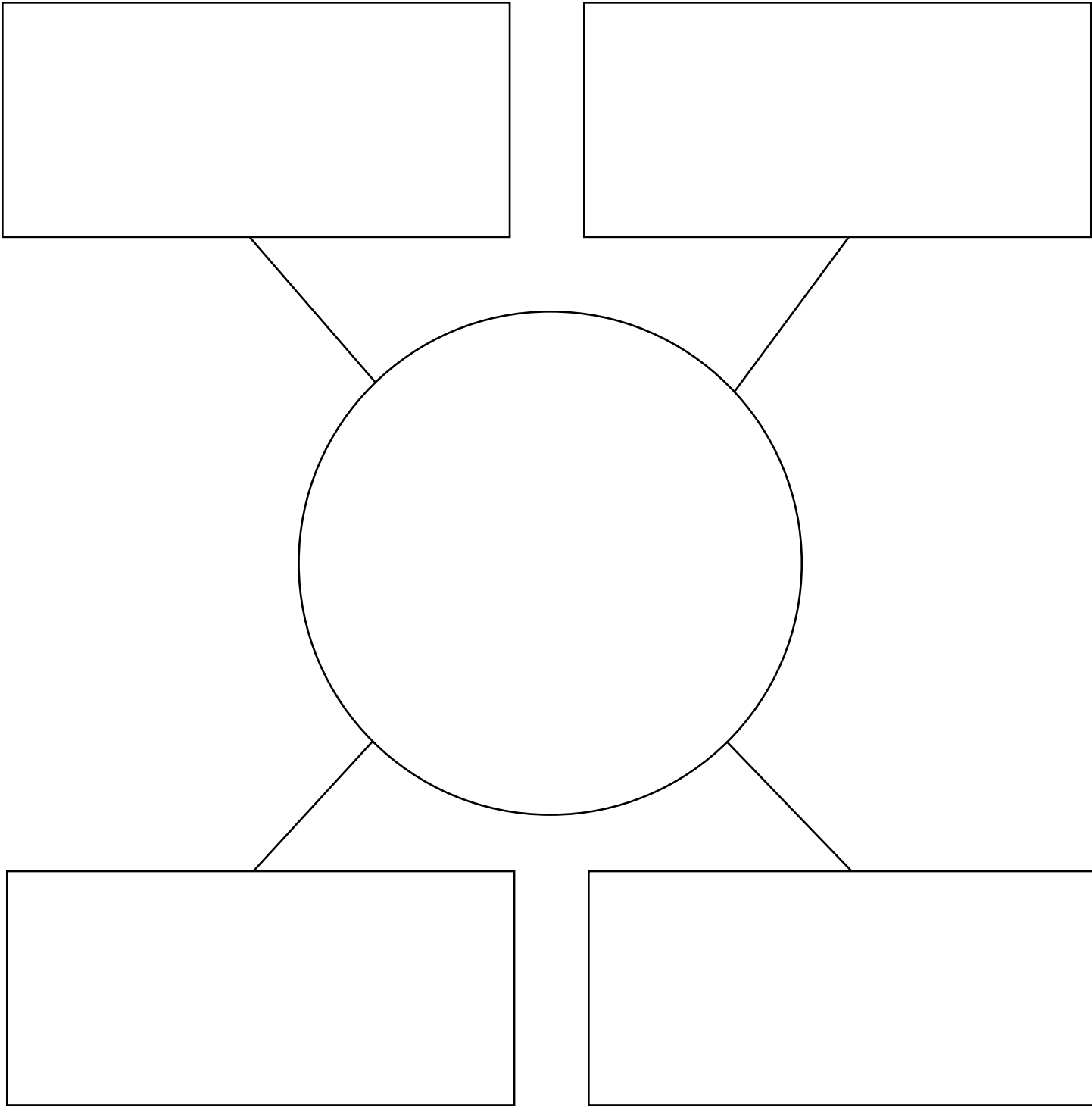
# Conventional (Analog) Hearing Aids

Conventional hearing aids increase sound level and fit on the back of the ear or inside the ear. An analog (conventional) hearing aid has an electronic circuit that closely matches a person's hearing-loss needs. It is possible to make one or two adjustments to the hearing aid. These aids offer the most basic type of amplification and are a good choice when money is the major concern. (They are the most inexpensive.)

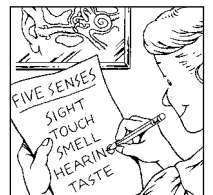




# Handout #5 Group Notes

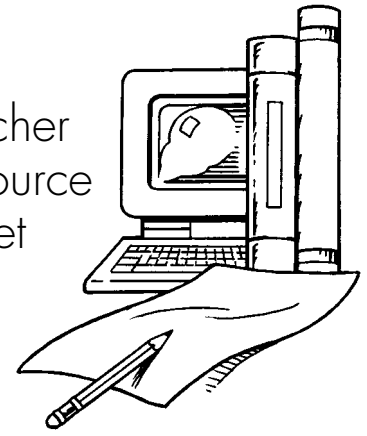


<b>Type of Hearing Aid</b>	<b>Description</b>	<b>Advantages</b>	<b>Disadvantages</b>



## Group Roles

Teacher  
Resource  
Sheet



**READER:** The reader should read the selection clearly to the group.

**RECORDER:** The recorder should write down important facts discussed by the group.

**TIMEKEEPER:** The timekeeper should keep track of the time and tell the group how much time remains.

**PRESENTER:** The presenter should speak clearly to the whole class when explaining what the group learned from the selection.

# Lesson Plan #1D

## Correlation to Sunshine State Standards, Florida Comprehensive Assessment Test (FCAT) and English as a Second Language (ESOL).

<b>Language Arts - Reading</b>		
Standard 2: The student constructs meaning from a wide range of texts (LA.A.2.2).		
<b>Benchmarks</b>	<b>Addressed in Unit(s)</b>	<b>FCAT Benchmark?</b>
LA.A.2.2.1 Reads text and determines the main idea or essential message, identifies relevant supporting details and facts, and arranges events in chronological order.	1C; 1D; 2A; 2B; 2C; 3A; 3B; 3E	Yes
LA.A.2.2.2 Identifies the author's purpose in a simple text.	1C; 1D; 2A; 2B; 2C; 3E	Yes
LA.A.2.2.5 Reads and organizes information for a variety of purposes, including making a report, conducting interviews, taking a test, and performing an authentic task.	1C; 1D; 2A; 2B; 2C; 3A; 3E	No
LA.A.2.2.7 Recognizes the use of comparison and contrast in a text.	1C; 1D; 2B	Yes

<b>Language Arts - Literature</b>		
Standard 2: The student responds critically to fiction, nonfiction, poetry, and drama (LA.E.2.2).		
<b>Benchmarks</b>	<b>Addressed in Unit(s)</b>	<b>FCAT Benchmark?</b>
LA.E.2.2.4 Identifies the major theme in a story or nonfiction text.	1C; 1D; 2A; 2C	No
LA.E.2.2.5 Forms his or her own ideas about what has been read in a literary text and uses specific information from the text to support these ideas.	1C; 1D; 2C	No

<b>Suggested ESOL Instructional Approach</b>	<b>Addressed in Unit(s)</b>	<b>ESOL Strategies</b>	<b>Addressed in Unit(s)</b>
Cognitive Academic Language Learning	1B, 1C, 1D, 2B, 2D, 3D, 3E	Visuals; Concept Mapping	1B, 1D, 2A 1D, 3E



# Instructional Lesson Plan #1D

Unit: **The Human Body**

Subject: **Hearing Loss Awareness**

Lesson Topic: **Cochlear Implants**

Time: **One-hour period**

Program Outcome(s)/Goal(s)/Expectation(s): **Students will demonstrate the ability to construct, extend and examine meaning by interacting with a text.**

Program Indicator(s): **Students will demonstrate the ability to interpret a text when reading to be informed.**

Student Outcome(s): **Students will distinguish between the benefits and limitations of cochlear implants by reading an expository text.**

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Context for Learning: Students may have already studied the parts of the ear (page 15 in Unit #1). Today they will refer to the cochlea and discuss the benefits and limitations of cochlear implants. Students will work in cooperative teams using "Round Robin."\*

The teacher will need the following materials:

- Answer Key for Benefits and Limitations (Teacher Resource #1)
- Black Line Master for Sets of Cards (Teacher Resource #2)
- Work Mat (Handout #1)

\* The Round Robin is explained under the Procedure Section.

# Instructional Delivery

## Opening Activities/Motivation

Use page 15 in Unit #1 to point out where the cochlea is located in the ear. Explain that the word “implant” means to insert surgically. The cochlear implant is a device used to help individuals with profound hearing loss (persons who are very hard of hearing and communicate primarily through lip reading and/or sign language) attain some degree of sound perception.

## Procedure

1. Read the student outcome together.
2. Review meanings of “benefit” and “limitation.” Use examples such as:
  - A **benefit** of getting a good education is finding a good job.
  - One **limitation** of sunbathing is the possibility of getting skin cancer.
3. Have students work in teams of four. Each team gets a set of cards with statements about cochlear implants. They must decide which statements are benefits and which ones are limitations. Use the Round Robin method in which each student takes a turn reading their card and then decides whether it is a benefit or limitation. Place the card under the proper heading on the Work Mat. Then the team can discuss whether or not they agree with the answer.

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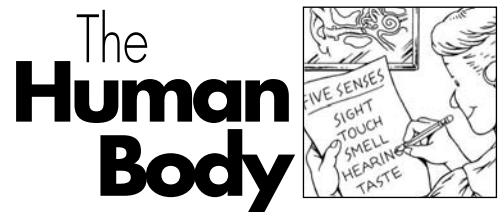
## Assessment/Evaluation

Teacher observation.

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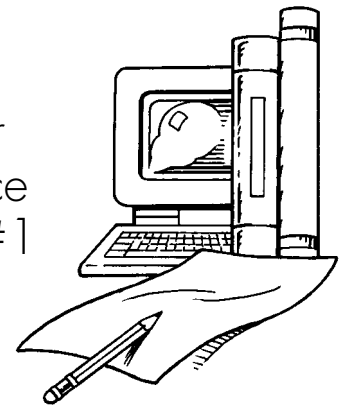
## Closure

Use the Teacher Resource Sheets to have teams check their answers. Discuss the reason each card was either a benefit or limitation.



# ANSWER KEY for Benefits and Limitations

Teacher  
Resource  
Sheet #1



Noisy environments remain a problem for cochlear-implanted adults.

**Answer: limitation**

Improvements in the speech perception and speech production of children after cochlear implantation.

**Answer: benefit**

Children who receive cochlear implants at a young age are on average more accurate in their production of consonants, vowels, intonation and rhythm.

**Answer: benefit**

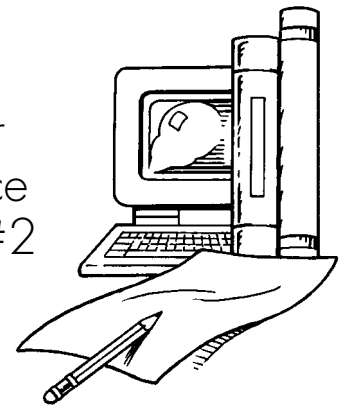
There is no definition of a successful implant user. There are no set standards or expectations for individuals using cochlear implants.

**Answer: limitation**



# Black Line Master for Sets of Cards

Teacher  
Resource  
Sheet #2



Noisy environments remain a problem for cochlear-implanted adults.

Improvements in the speech perception and speech production of children after cochlear implantation.

Children who receive cochlear implants at a young age are on average more accurate in their production of consonants, vowels, intonation and rhythm.

There is no definition of a successful implant user. There are no set standards or expectations for individuals using cochlear implants.





# Benefits

# Limitations

