

# Back to School: Supporting Students with Hearing Loss in Mainstream Classrooms

*Presented by:*

**Claire Troiano, M.E.D., OTC,**  
Director of Clarke Mainstream Services

**Brittany Dorn, M.E.D.,**  
Itinerant Teacher of the Deaf, Clarke Mainstream Services

The webinar will begin at noon EDT

# Claire Troiano, M.E.D.

Director, Clarke Mainstream Services



- Been at Clarke for 40 years
- Experience as a classroom teacher, mainstream consultant and trainer
- Director of Mainstream Services since 2008
- Our services began in 1977 and include direct service to students, consultation, professional training, audiological management and speech and language services

## Brittany Dorn, M.E.D.

Mainstream Teacher of the Deaf, Clarke Mainstream Services



- Entering my fourth year as a mainstream teacher of the deaf at Clarke Mainstream Services
- Work with students pre-K through grade 12 in mainstream classrooms
- Involved in Clarke's social programming, including Summer Adventure and Explore the Outdoors the last three years

# Clarke Schools for Hearing and Speech

## Our Mission...

To provide children who are deaf and hard of hearing with the listening, learning and spoken language skills they need to succeed



6 campuses located in MA (2), NY, PA (2), FL  
Founded in 1867

## 2014 Wednesday Webinar Series

- Focusing on listening and spoken language, this series is designed for professionals who work with children who are deaf and hard of hearing and their families.
- Certificates of Participation and LSLS CE credits are available by filling out the evaluation that will be emailed to you tomorrow.
- If you have questions, please submit them using the console and we will address them if we have time during the session, and if not, afterwards.
- More information about the rest of the series can be found at **[www.clarkeschools.org/webinars](http://www.clarkeschools.org/webinars)**.

# Learning Objectives for this Webinar

## By the end of the session, you will...

1. Be able to describe the implications of hearing loss in the mainstream classroom.
2. Be able to identify ways to improve access for students with hearing loss.
3. Have a basic understanding of hearing aids, cochlear implants and FM systems.

# Outline for today

- Who are the students we are talking about?
- Typical Hearing
- Hearing Loss (the basics)
- Technology
- Teaching Strategies
- Questions?

## Who are you?

1. Teacher of the Deaf / Speech Language Pathologist
2. Special Education Teacher / Para-professional
3. Parent of a child with hearing loss
4. Teacher in typical classroom with a child with hearing loss
5. Other

## True/False Quiz

1. Hearing aids restore normal hearing. **FALSE**
2. A hearing loss basically means the person hears everything softly. **FALSE**
3. Hearing losses vary only by degree. **FALSE**
4. Hearing means understanding. **FALSE**
5. The best way to help a child who misses a message is to repeat it. **FALSE**

# TODs: Beginning of the School Year

- Try to meet with student's team of teachers, including specials teachers, paraprofessionals, etc.
- Make orientations as interactive as possible: play simulations of hearing loss, cochlear implants, FM systems
- Take a look at the classroom (or classrooms for middle/high school students) to get a sense of acoustics, which we will discuss later
- Connect with the student's audiologist to learn more about technology and hearing history
- Whenever possible, convey information in the student's own words – what would he or she want the teachers to know?

# Who are the students we are talking about?

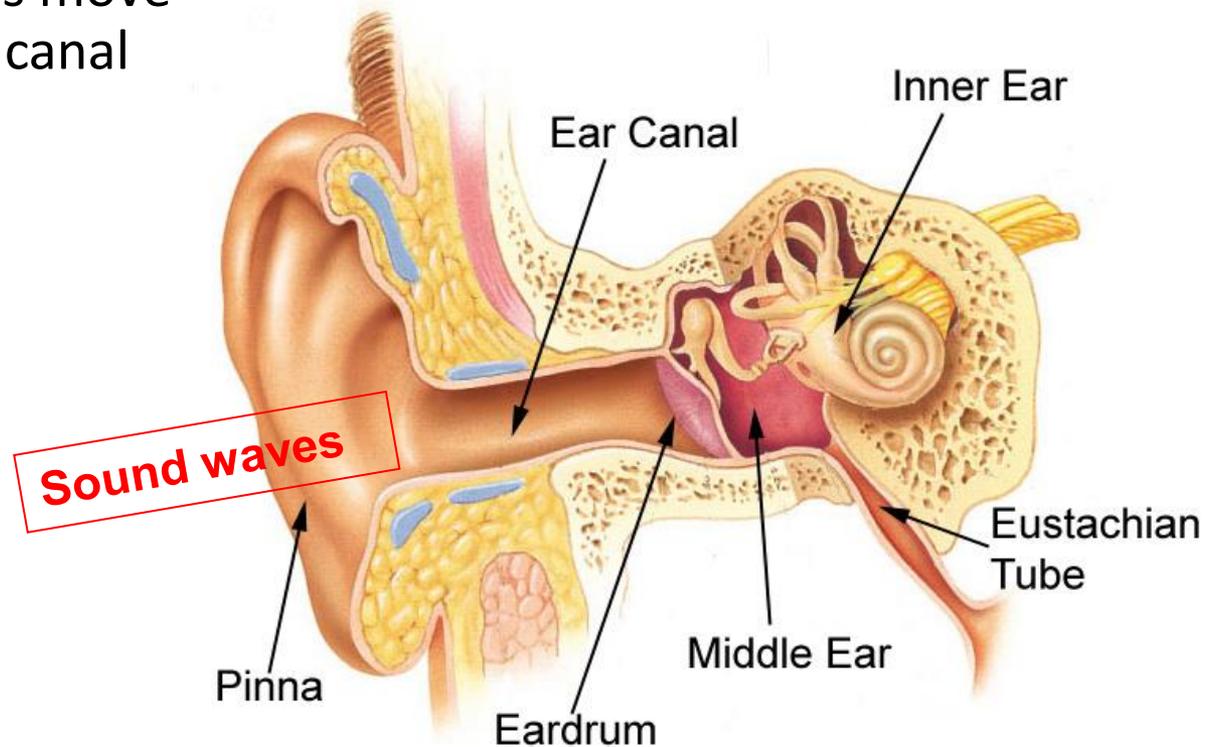
- **Use listening and spoken language**
- **Various hearing losses**
  - Mild to profound
  - Unilateral (one-sided) – Bilateral (both ears)
- **Use some type of technology**
  - Hearing aids
  - Cochlear implants

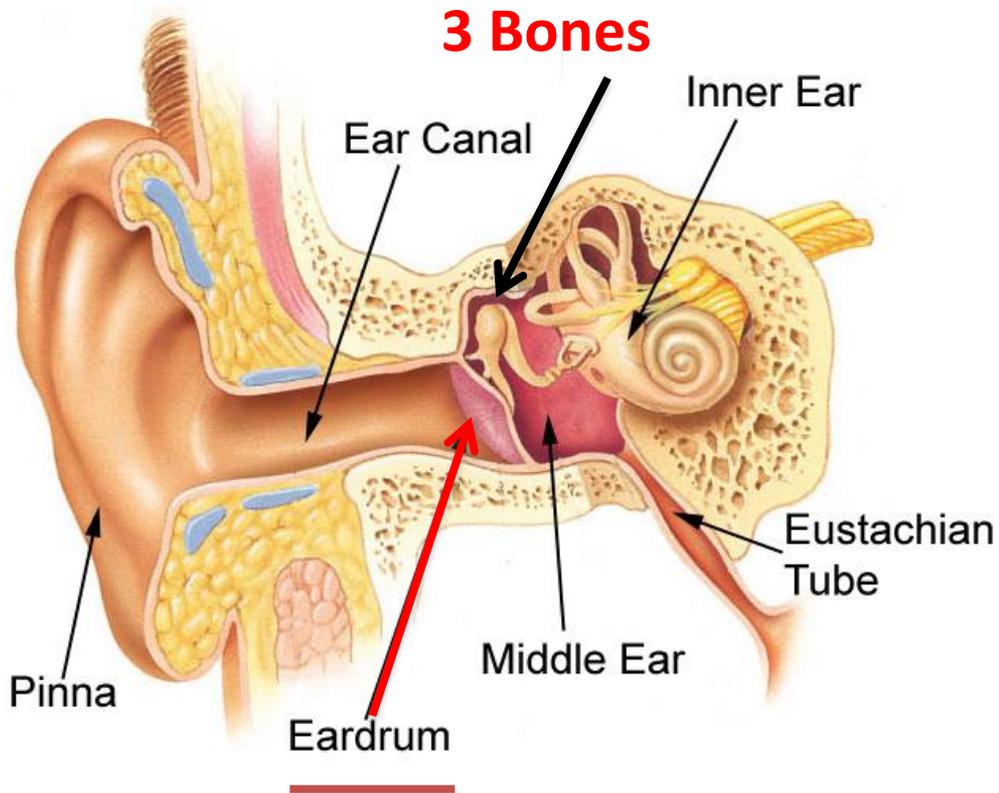
# Typical Hearing

# How do we hear?

The outer ear (pinna) catches sound waves.

The sound waves move through the ear canal until they reach the eardrum.

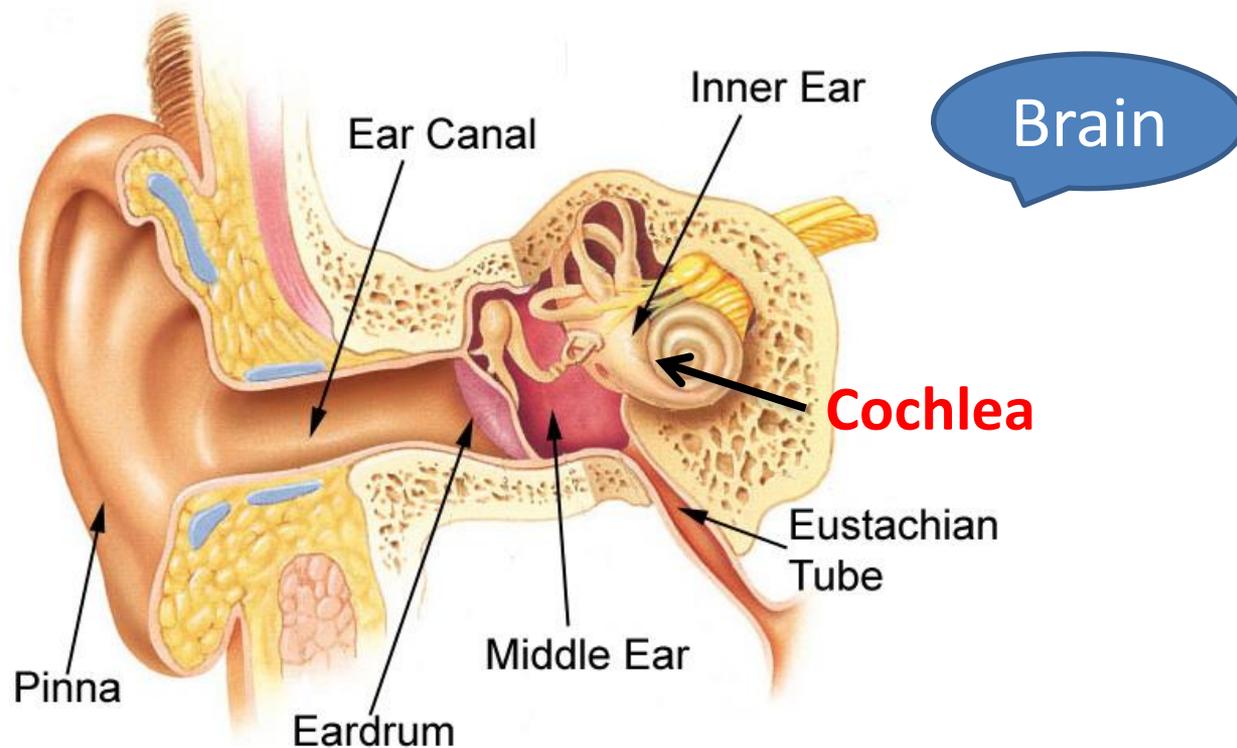




The vibration produced by the sound waves causes the eardrum to vibrate.

This movement travels to the 3 tiny bones in the middle ear, causing them to vibrate as well.

The vibration of the tiny bones reaches the hair cells lining the cochlea (the organ of hearing).



The cochlea translates the sound information into a code the brain can understand.

**Fun Fact!**

The stapes is the smallest bone in the human body.



# Hearing Loss

When the outer ear, middle ear, and inner ear are all working correctly, sound can be heard and interpreted.

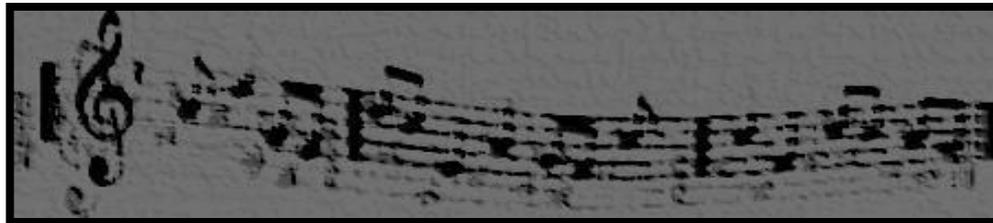


A disruption in this process causes  
a hearing loss.

Often, a hearing loss is not only a loss of loudness...



But a loss of clarity  
(think of an FM radio station).



# Your turn to experience hearing loss!

- You are going to take a spelling test.
- There are 10 common words.
- Write down what you hear.

## How did you do?

1. Fill
2. Catch
3. Thumb
4. Heap
5. Wise
6. Wedge
7. Fish
8. Shows
9. Bed
10. Juice

## How did you do?

- 0-1 words correct
- 2-3 words correct
- 4-5 words correct
- 6-7 words correct
- 8-10 words correct

## How was the experience?

- How did you feel?
- Would turning up the volume help?
- Did any distractions interfere?
- What would have made this easier?

# Hearing loss is:

Always a loss of loudness

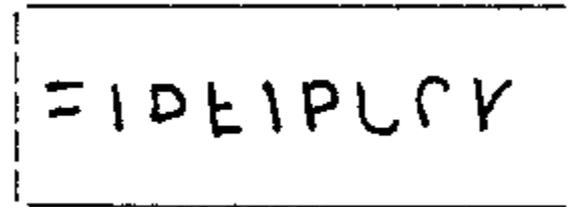
Usually a loss of clarity

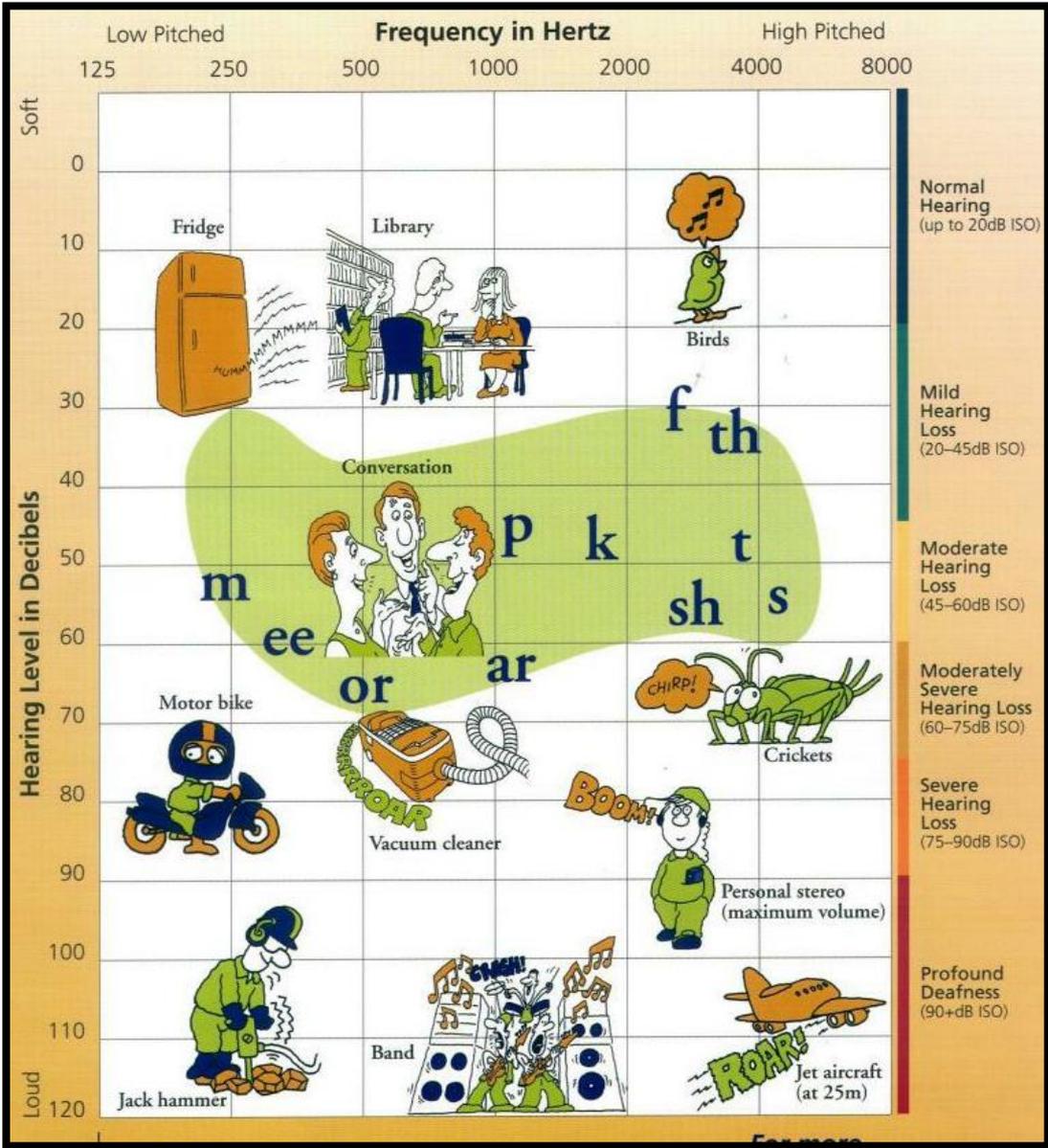
A loss of information

May have social implications

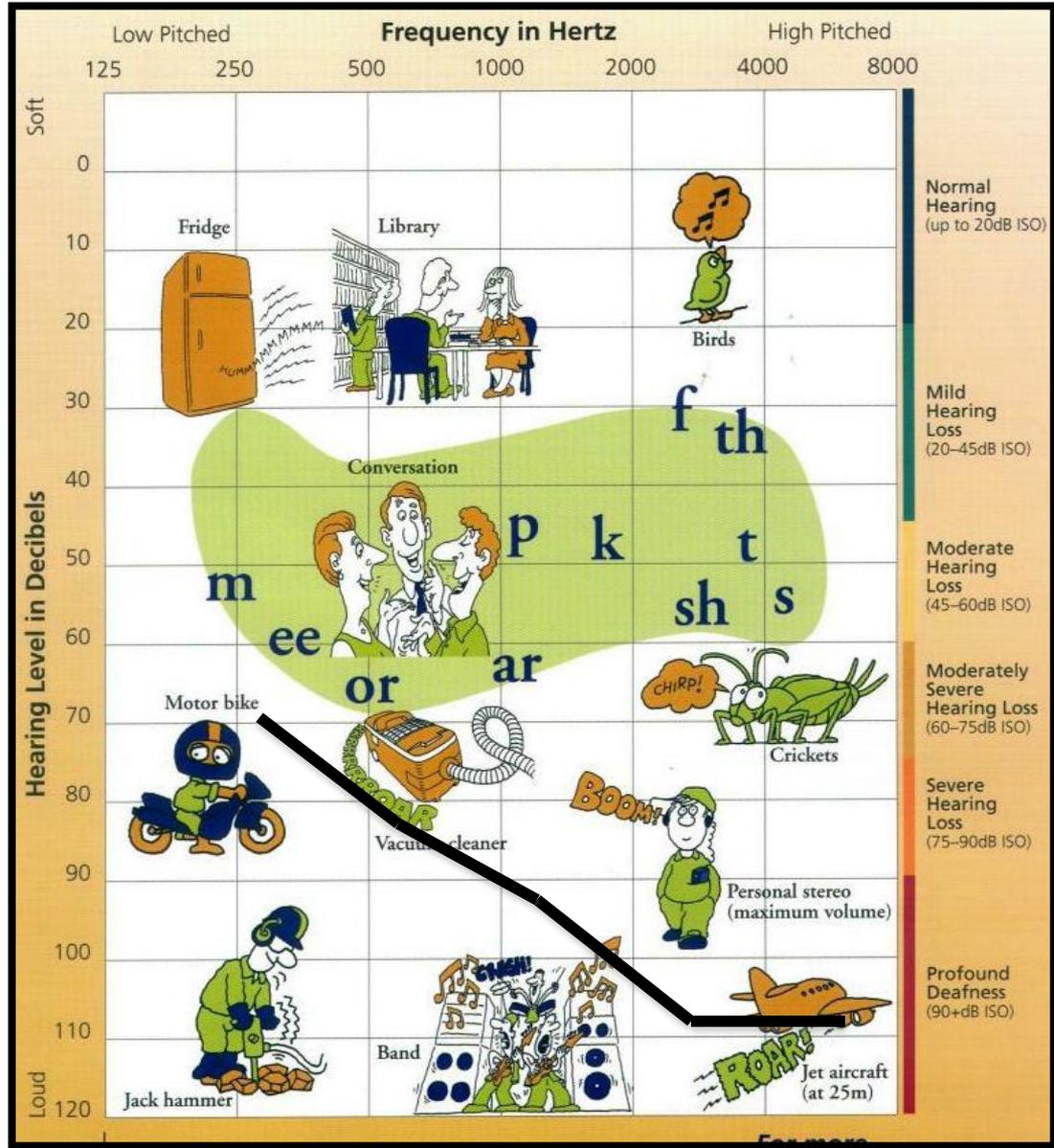
Less exposure to new vocabulary and syntax

Hello!





An audiogram is a graph showing what a person can hear in terms of volume and pitch



Audiogram of a profoundly deaf child

*What is the educational impact of this hearing loss?*

# Hearing loss and language

- How did you learn to read?
- How did you learn to talk?
- Importance of incidental learning  
*(what we learn without even trying)*
- Kids with hearing loss miss out on this!

## Filling in the gaps...

Aka why hearing loss is different for children

I cdnuolt blveiee taht I cluod aulacly uesdnatnrd waht I was rdanieg.

The phaonmneal pweor of the hmuan mind.

Aoccdrnig to rscheearch at Cmabrigde Uinervtisy, it deosn't mttae in waht oredr the ltteers in a wrod are, the olny iprmoatnt tihng is taht the frist and lsat ltteer be in the rghit pclae.

# Hearing loss and language

## Some challenges:

- Word endings, such as -s or -ed (students may miss quiet speech sounds: s, z, f, th, and therefore leave them out of speech/writing)
- Complex sentences (e.g. clauses: “the little girl, who was wearing the hat, was playing outside”)
- Abstract and figurative words and concepts (*democracy*)

# Challenges for students with hearing loss: hearing, understanding and responding

- **HEARING** the message
  - What makes this hard? **Acoustics!** Distance, noise, etc.
- **UNDERSTANDING** the message
  - What makes this hard? **Vocabulary!** Gaps in background knowledge, unknown words, etc.
- **RESPONDING** to questions
  - **Language!** Limited vocabulary, lacking language structures used for specific purposes, e.g. to explain cause and effect, compare and contrast, etc.

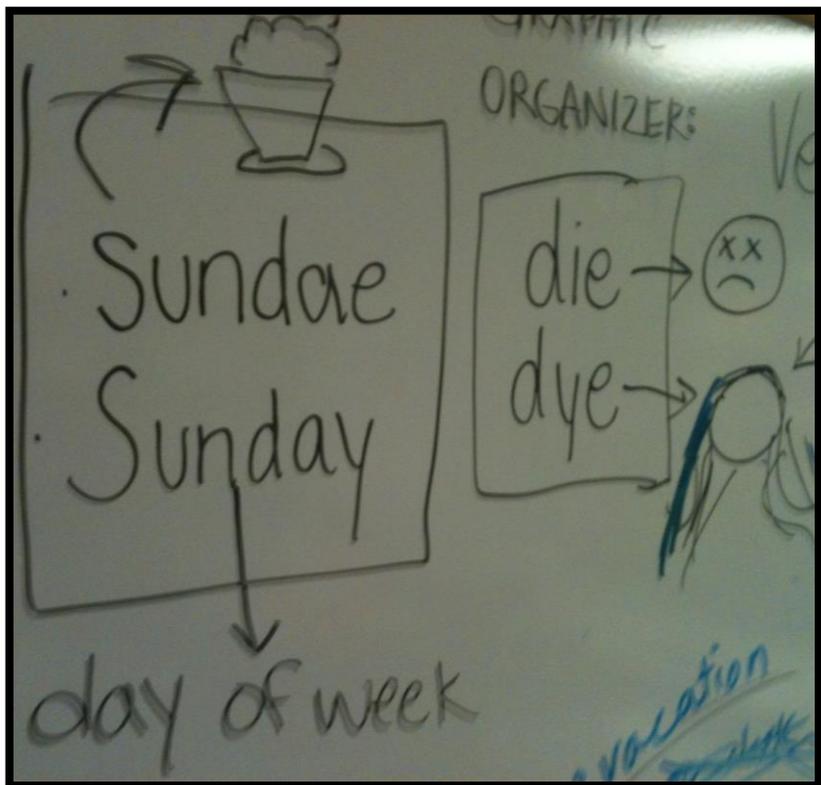


# Language and vocabulary work

conclusion  
 → tell how they are the same  
 Compare and contrast  
 Lauren's vacation with  
 Ms. Dorn's vacation. ↓ tell how they are different

Lauren and Ms. Dorn both went on vacation, but they were not the same.

I went to Clark on Tues.  
 But Ms. Dorn went on sun. One way the vacations are alike is that Lauren and Ms. D both went to the park. I dyed my hair purple with my friend while Ms. Dorn got a red color. We both saw a movie, however Lauren saw it on TV and Ms. D saw it in a theater. I went to McDonald's and got a ~~sin~~ same. But Ms. D went to purple pig instead. These are fun things Lauren and Ms. D did over vacation.

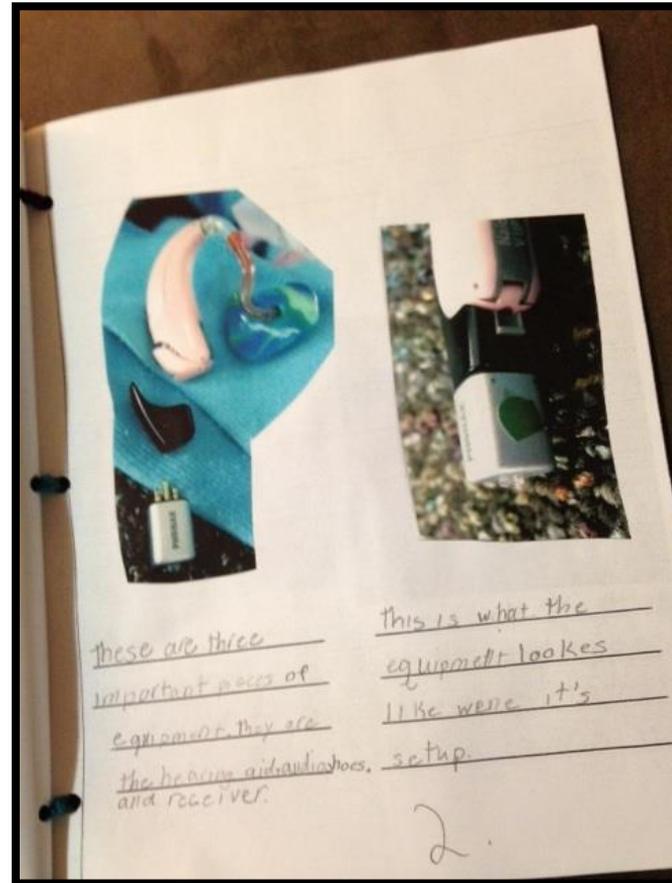
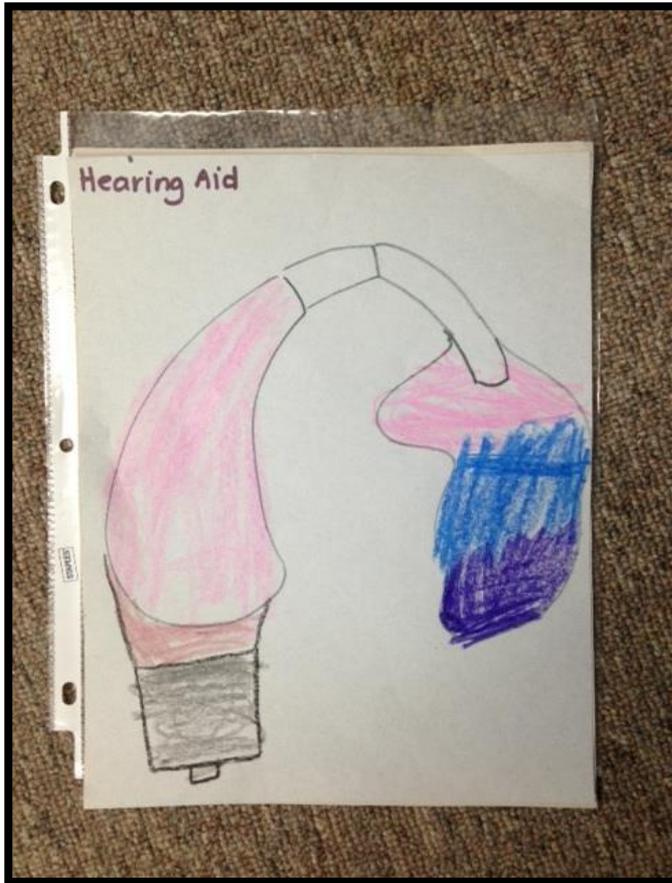


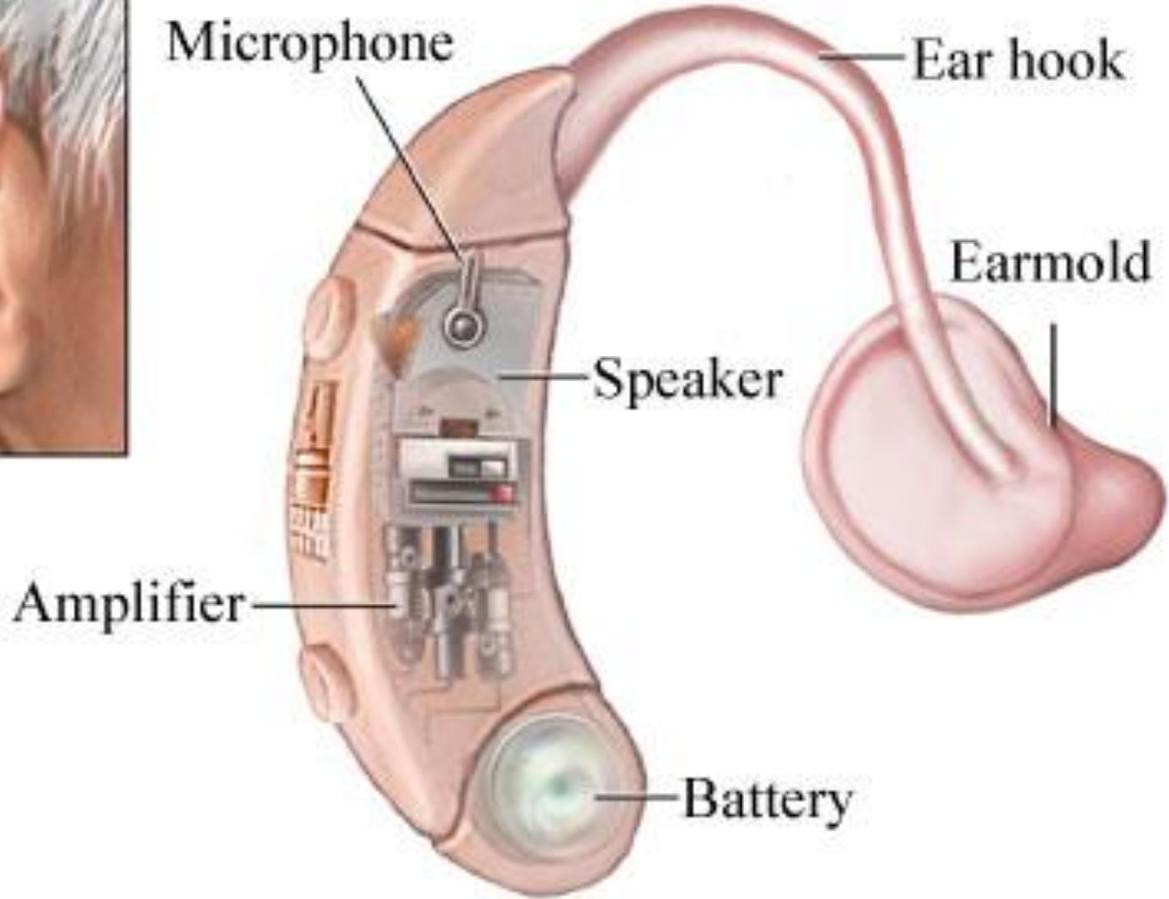
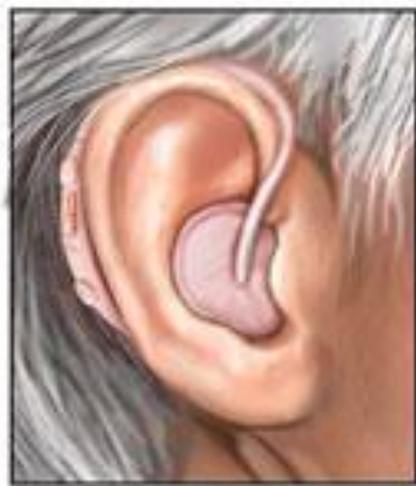
# Technology

## A hearing aid...

- Is an electroacoustic listening device which amplifies all sounds, including noise.
- Does not repair the damaged hearing organ.
- Does not ensure comprehension.

# Hearing Aids – as told by students

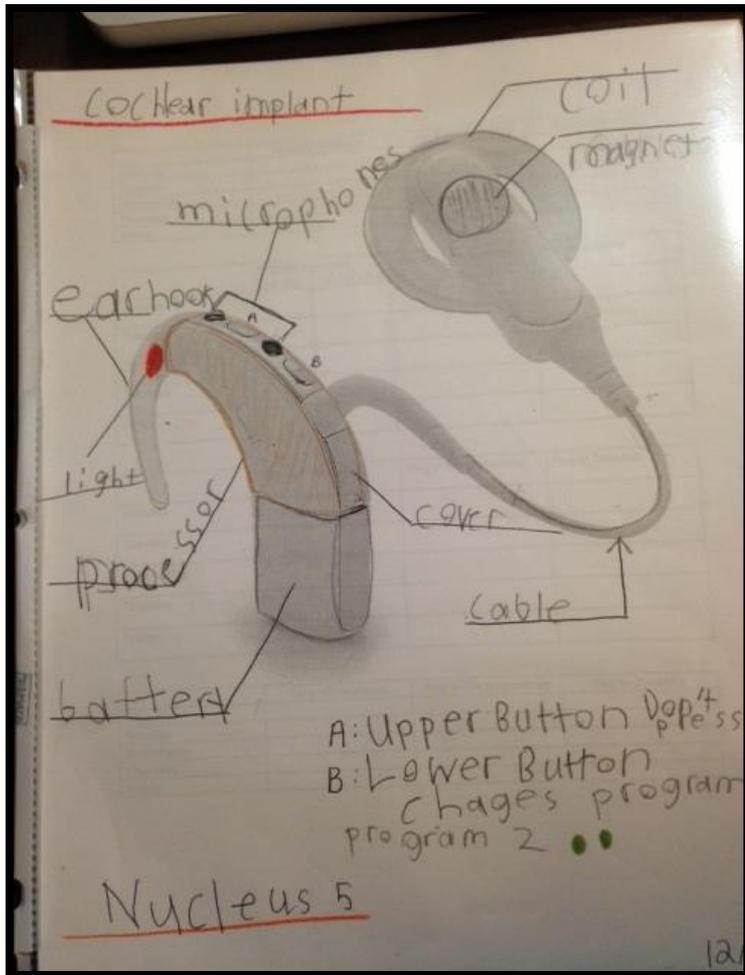




## A cochlear implant ...

- Is an implanted listening device which provides access to speech sounds.
- Does not repair damaged hearing organs.
- Does not ensure comprehension.
- Amplifies all sounds including noise.
- Causes the wearer to perceive sound differently (hard to simulate).

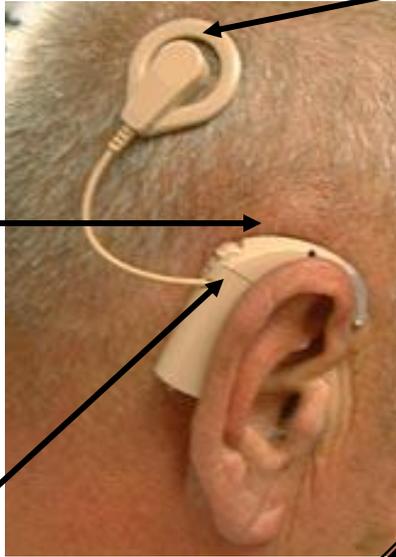
# Cochlear implants – as told by students



A cochlear implant is a device that has inner part and outer part to help me hear. I had surgery when I was young to plant a magnet inside my head, (yes, I can attach magnets to my head, but I prefer not to) and that is why my CI does not fall off.



1. Sound is received by microphone



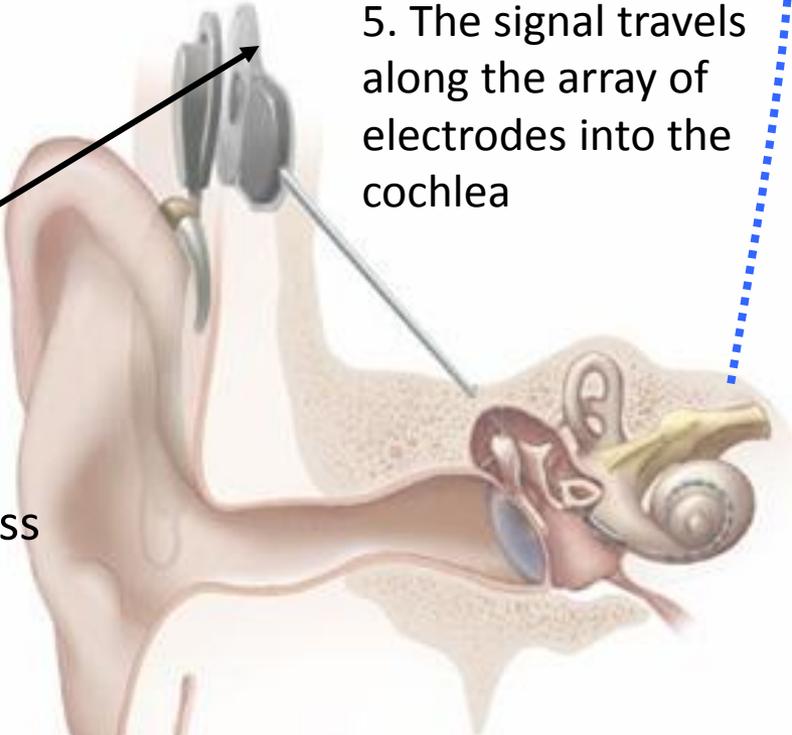
3. The signals from the processor are sent to the transmitter

2. It is sent from the microphone to processor

6. The message is sent to the brain.

5. The signal travels along the array of electrodes into the cochlea

4. The transmitter sends the signal across skin to the internal implant



## An FM System

- Perceptually brings the speaker's voice approximately 6" from the listener's ear.
- Should be used for all large and small group instruction.
- Can help with the two biggest listening challenges: distance from speaker & background noise.
- Must be charged overnight in order to work.

# Sample FM system

## Phonak Inspiro



## Why use it?

Noise with hearing aids

**60%**

Noise with hearing aids AND FM

**85%**

# TODs: Encouraging correct use of the FM

- Students should be able to accurately report if FM system is on vs. muted
- Students should be able to advocate for FM system and communicate to teachers if they need to mute/unmute
- Info sheet for substitutes



# A student with hearing loss may seem...

**Tired** 

Because most of their day is spent straining to hear, need “listening breaks”

**Distracted** 

Background noises are also amplified by equipment and may make it hard to focus (heating/cooling system, electronics, other students)

**Rude**  (without meaning it!)

May misinterpret a message or miss social cues such as greetings (especially in noisy environments like at recess or in the cafeteria, where most socializing takes place)

# Important Suggestions for Teachers

- Make sure your face is well-lit
- Ensure visual access to all speakers
- Introduce new topics or shifts in conversation
- Identify student speakers and paraphrase comments
- Write new vocabulary or key words on the board
- Avoid giving important instruction during noisy times
- Always use closed-captioned movies/videos
- Make sure students have access to announcements
- Check for understanding with simple questions

# TODs: Consulting with Teachers

- Start with something positive! Try using the compliment sandwich
- Base your suggestions off your notes and observations
- Focus on one or two suggestions during each consult
- Meet regularly in a quiet place at a low-stress time
- Teachers are busy at the beginning of the year! Try to frame your suggestions in the light of helping the teacher rather than giving them extra work
- Keep the conversation student-focused rather than adult-focused

# Acoustical Friendly Classrooms

- Tennis balls on chair and table legs
- Avoid speaking near noise sources
- Close doors to block out hallway noise
- Use area rugs



## Social Considerations

- Limited access to sound in many social settings such as the lunchroom, hallway, recess
- May be unfamiliar with idiomatic expressions/slang used in conversations
- May mishear and/or misunderstand conversations with peers
- Might have limited knowledge of current trends (tv shows, news, etc.)
- May be uncomfortable with hearing aids, implants, deafness, or being different from peers

# Remember!

- Students with hearing loss often require direct teaching of complex language
- Typical classrooms provide many listening challenges
- Hearing technology provides access but **does not** “fix” hearing

# Hear Me Out Blog

## Hear Me Out

A blog for itinerant teachers and other professionals working with children who are deaf or hard of hearing

Learn more about **Hear Me Out** and author Heather Stinson

FRIDAY, OCTOBER 11, 2013

### Making the Most of Consult Time

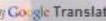


Cooler evenings, the slow changing of leaves, harvest decorations adorning the front doors of houses, bright yellow school buses... all signal the beginning of autumn in New England. A less well-known sign is the sight of an itinerant teacher frantically erasing and rewriting her schedule in an attempt to fit a whole caseload into just five days -- all while avoiding lunch, recess, specials, reading support, and the rotating high school schedule. And did I mention consult time?

The start of the school year brings many challenges for us itinerants and some of the greatest challenges come with scheduling consult time. At Clarke, consult time, along with direct service, is included for each student on the IEP grid. But that doesn't mean that every teacher will be willing to sacrifice prep time to meet! Consult time is a valuable opportunity for itinerants to learn about the curriculum, the goals of an assignment or lesson (which helps with pre-teaching), and the social expectations of the classroom. This can help ensure access for our students and build relationships with classroom teachers. To help start the year off right, here are a few strategies to successfully use consult time.

Clarke Mainstream Services  
Since 1977, Clarke Mainstream Services has provided itinerant teaching and consulting services for children with hearing loss, their families, and schools. Clarke provides children who are deaf and hard of hearing with the listening, learning, and spoken language skills they need to succeed.

Learn more about our print newsletter for teachers and schools, The Mainstream News.

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OTHER BLOGS FOR PROFESSIONALS

 **ASHAsphere**  
Tips to Wrangle Your Most Unruly Speechies  
5 hours ago

<http://clarkemainstream.blogspot.com>

# Mainstream Conference

**35th Annual Conference**  
on Mainstreaming  
Students with Hearing Loss

**Tuning In and  
Tapping Potential**

TUESDAY, OCTOBER 21 AND WEDNESDAY, OCTOBER 22, 2014  
[clarkeschools.org/mainstreamconference](http://clarkeschools.org/mainstreamconference)  
Sturbridge Host Hotel & Conference Center, Sturbridge, Massachusetts

12th Annual  
Student Track  
**Making  
Connections!**  
7th-12th graders  
invited to attend  
SEE INSERT!

Register before September 29  
for early bird rates.



## Next Webinar

- Wednesday, November 5, 2014 Noon – 1 p.m. EDT
- *Partners in Learning: Supporting Parents of Infants and Toddlers who are Deaf and Hard of Hearing*
- Presented by Cynthia Robinson, M.Ed., CED, LSLS Cert. AVEd Co-Director of Clarke Schools for Hearing and Speech Jacksonville and Janice C. Gatty Ed.D. Director of Child & Family Services for Clarke Schools for Hearing and Speech Northampton
- LSLS CEUs are pending approval.
- **[clarkeschools.org/webinars](http://clarkeschools.org/webinars)**

## Follow Up & Evaluation

- An archive of this webinar will be available in the next few weeks at **[clarkeschools.org/webinars](https://clarkeschools.org/webinars)**
- Tomorrow you will receive a follow up email that includes a link to an evaluation. If you wish to receive either a Certificate of Participation or a LSLS CE hour, you must first complete this evaluation.
- Please direct any questions to [webinars@clarkeschools.org](mailto:webinars@clarkeschools.org)