



# LEVELS OF LISTENING

## Overview



- PATHWAY TO THE BRAIN
- FAMILIAR SOUNDS AUDIOGRAM
- DETECTION
- DISCRIMINATION
- IDENTIFICATION
- COMPREHENSION
- DAILY OPPORTUNITIES TO BUILD SKILLS

## It's All About The Brain



- Like all sensory input, hearing happens in the brain
- Dr. Carol Flexer asks us to, *"Think about hearing loss as a **doorway problem**, because the ears are the doorway to the brain."*

Video Clip:

<https://www.youtube.com/watch?v=uTaYu5R45a4>



Make sure the  
"Doorman" is on  
duty ALL day.

It is a very  
important job!



## WHAT SKILLS COME FIRST?



- Knowing the order in which skills develop will help parents and service providers focus efforts and expectations in the appropriate areas
- Parents may need to introduce these materials to their service providers if they have not had specialized training in listening and spoken language



## Auditory Skills Hierarchies



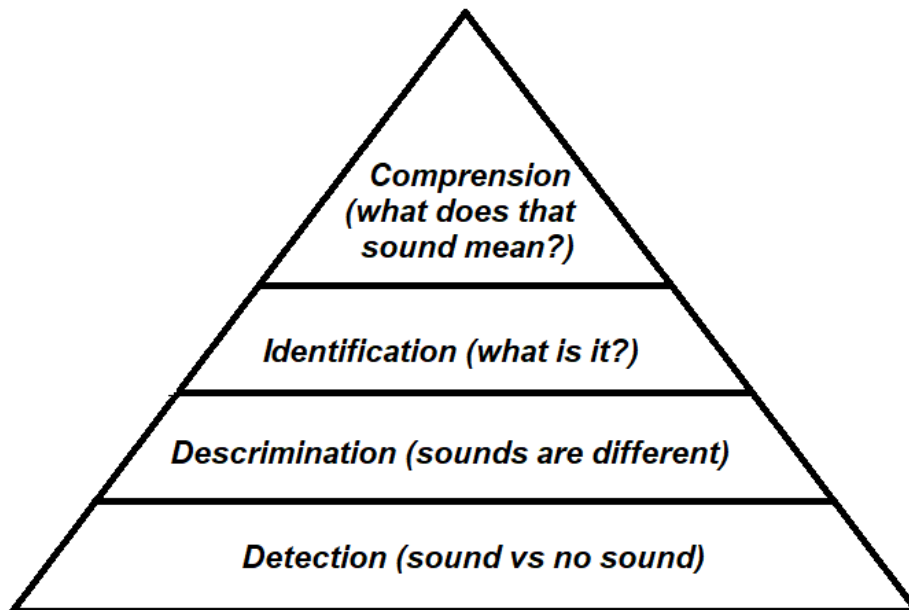
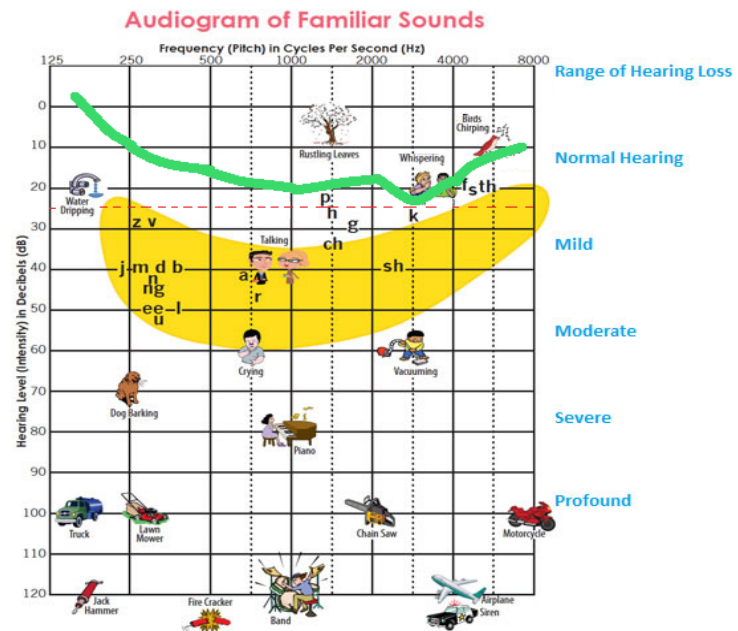
- Auditory Learning Guide\*
- Auditory Skills Checklist\*
- Integrated Scales of Development\*
- Cottage Acquisition Scales for Listening, Language and Speech (available for purchase through Sunshine Cottage)

\*See downloadable handouts of free materials



# Speech Banana vs. String Bean

Full access is needed for the  
developing brain to differentiate  
speech sounds



## Detection Level



- Ability to respond to the presence or absence of sound
  - Spontaneous responses include observable physical changes immediately following a sound in the environment
    - Examples: pausing, smiling, turning eyes or head, vocalizing
  - Conditioned responses have to be taught and require specific actions immediately following a sound
    - Examples: Dropping a block in a bucket, stacking rings, pushing a button to get the picture to change AFTER the sound is presented



## VIDEO EXAMPLES



1. Detection and sound location during snack
2. Visual Response Audiometry

## Discrimination Level



- Ability to recognize similarities and differences between two or more speech stimuli
- The child learns to respond differently to changes in speech such as tone and rhythm
  - Example: Baby recognizes that your voice changes when you are talking to them vs an adult. Also, one child responding to an emotional response of another child.



## VIDEO EXAMPLE



- Discriminating voicing changes

## Identification Level



- Ability to show understanding by repeating, pointing to or writing what was heard
- Involves both suprasegmental and segmental features of speech
  - Suprasegmental features
    - The pitch, volume, length of sounds
    - Example: The paired sound for the airplane is the pitch moving up and down on the "ah" vowel, the sound paired with the snake is a sustained "sss", the sound paired with the mouse is an intermittent "ee-ee-ee"
  - Segmental Features
    - The manner, place and voicing of vowels and consonants
    - Examples: Minimal pairs like "man" vs "pan", "hat" vs "hot", "big" vs "bit"

## VIDEO EXAMPLES



1. Selecting a toy associated with a familiar song
2. Choosing the corresponding picture in a minimal pair set

## Comprehension Level



- Ability to understand the meaning of speech
  - Examples: Answering questions, following directions, paraphrasing, or participating in a conversation
- The child's response is qualitatively different from what conversation partner has just said (not just an echo)
  - Examples: Parent—"Look at that puppy!" Child—"It's little."  
Parent—"What do you need?" Child—"More juice!"
- Requires auditory memory to follow the sequence
- Ability to listen and attend in noise

## VIDEO EXAMPLES



1. Comprehension of routine directions
2. Recall of 2 critical elements (barrier game)
3. Sequencing 3 actions

## Background Noise



- Whenever possible, eliminate competing sound sources such as the television, radio, fans, etc.
- Talk to your audiologist about a personal FM system for noisy places



## Daily Opportunities Build Skills



- The Listening Walk—detection and/or discrimination
- Purposeful Noise Play—detection, discrimination and identification
- Singing/Music—all levels
- Reading books—identification and comprehension
- Auditory First Strategy—Identification and comprehension
- Parallel Talk—all levels
- Self Talk—all levels

## Join us next month...



Our February webinar will be on daily use of Listening and Spoken Language Strategies

## Free Online Resources



RESOURCE AND WEBSITE (free with registration or download)	ACCESS	AGE RANGE
<b>Baby Beats:</b> For families with children experiencing hearing loss, BabyBeats from Advanced Bionics is a motivating, fun program to foster listening and communication development in natural settings, both before and after using hearing aids or receiving cochlear implants. <a href="https://advancedbionics.com/nz/en/campaign/babybeats.html">https://advancedbionics.com/nz/en/campaign/babybeats.html</a>	CD/Paper App via Apple or GooglePlay	Infant-Toddler
<b>Communication corner:</b> Resources to improve listening, encourage conversations, and instill confidence so that you can achieve your best <a href="https://www.cochlear.com/us/communication-corner">https://www.cochlear.com/us/communication-corner</a>	Website Paper	Infant-Toddler School Age Tween-Teen Adult

## Free Online Resources (continued)



RESOURCE AND WEBSITE (free with registration or download)	ACCESS	AGE RANGE
<p><b>The Listening Room:</b> A host of free, fun activities and resources to support the development of speech, language, and listening skills in people of all ages with a hearing loss. The Listening Room features three sections with content created specifically for their respective age groups: Infants &amp; Toddlers, Kids, and Teens &amp; Adults.</p> <p><a href="https://thelisteningroom.com/en/">https://thelisteningroom.com/en/</a></p>	Website	Infant-Toddler School Age Tween-Teen Adult
<p><b>Sound Scape:</b> Provides various games are designed to help you test and hone your listening skills. There are different interactive listening activities designed for various age groups.</p> <p><a href="https://www.medel.com/us/soundscape/">https://www.medel.com/us/soundscape/</a></p>	Website	Infant-Toddler School Age Tween-Teen Adult

## Free Online Resources (continued)



RESOURCE AND WEBSITE (free with registration or download)	ACCESS	AGE RANGE
<p><b>Angel Sound:</b> This is an interactive auditory training and hearing assessment program that lets you take control of your listening rehabilitation independently through a series of self-paced modules that cover different aspects of the listening process. The level of difficulty is automatically adjusted to match your developing listening skills.</p> <p><a href="http://angelsound.tigerspeech.com/angelsound_about.html">http://angelsound.tigerspeech.com/angelsound_about.html</a></p>	Website App via Apple	Infant-Toddler School Age Tween-Teen Adult
<p><b>Sound Success:</b> Advanced Bionics Sound Success was created to enable people with a hearing loss to work independently to get optimal benefit from their hearing aids or cochlear implants. It focuses on building your confidence and skills to speech-read (lip-read) and follow speech without speech-reading cues.</p> <p><a href="http://www.absoundsuccess.com/">http://www.absoundsuccess.com/</a></p>	Website	Adult

## Additional References & Image Credits

- John Tracy Clinic <https://www.jtc.org/babys-first-hearing-aid/>
- Alexander Graham Bell Association <http://www.agbell.org>
- Aussie Deaf Kids <https://www.aussiedeafkids.org.au/surgery-for-a-cochlear-implant.html>
- Be Hear Now <https://twitter.com/behearnow1>
- Shutter Stock <https://www.shutterstock.com/search/child+hearing+aid?studio=1>
- Elizabeth Rosenzweig [www.auditoryverbaltherapy.net](http://www.auditoryverbaltherapy.net)
- Ear Community <https://earcommunity.org>
- Center for Hearing and Communication <http://chchearing.org/>
- Sunshine Cottage <https://www.sunshinecottage.org>
- Cochlear <https://www.webmd.com/parenting>
- Hearing First <http://www.hearingfirst.org>
- <https://www.familyeducation.com>
- <http://recipegeek.com>
- <https://www.oticon.com>
- <https://www.healthyhearing.com>
- <https://successforkidswithhearingloss.com>