

## Auditory Processing – A Breakdown of Skills

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The term **auditory processing** refers to how the brain perceives and interprets sound information. Several skills determine auditory processing ability—or listening success. They develop in a general four-step hierarchy, but all work together and are essential for daily listening. Although researchers do not agree on the exact hierarchy of skills, they generally agree on what skills are essential for auditory processing success (Cochlear Americas, 2009; Johnson et al., 1997; Nevins & Garber, 2006; Roeser & Downs, 2004; Stredler-Brown & Johnson, 2004).



### Step 1: Auditory Awareness

- **Auditory Awareness** - the ability to detect sound
- **Sound Localization** - the ability to locate the sound source
- **Auditory Attention/Auditory Figure-Ground** - the ability to attend to important auditory information including attending in the midst of competing background noise

### Step 2: Auditory Discrimination

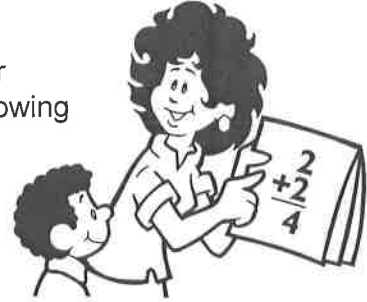
- **Auditory Discrimination of Environmental Sounds** - the ability to detect differences between sounds in the environment
- **Auditory Discrimination of Suprasegmentals** - the ability to detect differences in non-phoneme aspects of speech including rate, intensity, duration, pitch, and overall prosody
- **Auditory Discrimination of Segmentals** - the ability to detect differences between specific speech sounds

### Step 3: Auditory Identification

- **Auditory Identification (Auditory Association)** - the ability to attach meaning to sounds and speech
- **Auditory Feedback/Self-Monitoring** - the ability to change speech production based on information you get from hearing yourself speak
- **Phonological Awareness (Auditory Analysis)** - the ability to identify, blend, segment, and manipulate oral language structure

## Step 4: Auditory Comprehension

- **Auditory Comprehension** - the ability to understand longer auditory messages, including engaging in conversation, following directions, and understanding stories
- **Auditory Closure** - the ability to make sense of auditory messages when a piece of auditory information is missing; filling in the blanks
- **Auditory Memory** - the ability to retain auditory information both immediately and after a delay
- **Linguistic Auditory Processing** - the ability to interpret, retain, organize, and manipulate spoken language for higher level learning and communication



### Resources

Cochlear Americas. (2009, February). Listening at school. *In Educator's guide to cochlear implants*. Retrieved from <http://www.cochlearamericas.com/Support/2156.asp>

Johnson, C.D., Benson, P.V., & Seaton, J.B. (1997). *Educational audiology handbook*. San Diego: Singular Publishing Group.

Nevins, M.E., & Garber, A. (2006, May). Auditory skill development. *Cochlear Americas Habilitation Outreach for Professionals in Education*. Retrieved from <http://professionals.cochlearamericas.com/sites/default/files/resources/HOPEFUN666.pdf>

Roeser, R.J., & Downs, M.P. (2004). *Auditory disorders in school children: The law, identification, remediation 4th ed.* New York: Thieme Medical Publishers, Inc.

Stredler-Brown, A. & Johnson, C.D. (2004). *Functional auditory performance indicators: An integrated approach to auditory skill development (3rd ed.)*. Retrieved from [http://www.cde.state.co.us/cdesped/download/pdf/FAPI\\_3-1-04g.pdf](http://www.cde.state.co.us/cdesped/download/pdf/FAPI_3-1-04g.pdf)

### Helpful Products

The list of Super Duper® products below may be helpful when working with children who have special needs. Visit [www.superduperinc.com](http://www.superduperinc.com) and type in the item name or number in our search engine. Click the links below to see the product description.

*HearBuilder™ Following Directions – Professional Edition*  
[Item #HBPE-133](#)

*HearBuilder™ Following Directions – Home Edition*  
[Item #HBHE-122](#)

*HearBuilder™ Phonological Awareness – Professional Edition*  
[Item #HBPE-255](#)

*HearBuilder™ Phonological Awareness – Home Edition*  
[Item #HBHE-244](#)

*Look Who's Listening!® Board Game*  
[Item #GB-512](#)

*Auditory Memory for Quick Stories*  
[Item #AMLQ-110](#)

*Auditory Memory High-Interest Quick Stories™*  
[Item #AMLQ-220](#)

*Auditory Processing Chipper Chat®*  
[Item #CC-44](#)

*Auditory Adventures®*  
[Item #GB-654](#)