MANUAL ON AUDITORY TRAINING FOR CHILDREN WITH COCHLEAR IMPLANTS

(A complete guide in Indian English for parents of children with cochlear implants to develop their speaking and listening skills)

VOLUME 1

CHIEF EDITORS
Dr. Sivaraman G
Dr. Arun Alexander

A publication by the Department of ENT, JIPMER, Puducherry, India
MANUAL ON AUDITORY TRAINING FOR CHILDREN WITH COCHLEAR IMPLANTS

(A complete guide in Indian English for parents of children with cochlear implants to develop their speaking and listening skills)

VOLUME 1

CHIEF EDITORS

Dr. Sivaraman G

Dr. Arun Alexander

A publication by the Department of ENT, JIPMER, Puducherry, India
Publication Information

This book is a free e-publication done as a part of an ICMR-funded project titled “Development and Assessment of a Comprehensive Smartphone / Computer-Based Auditory-Verbal Therapy for Children with Cochlear Implants for Indian Vernaculars” by the Department of ENT, JIPMER in association with the Department of Computer Science and Engineering and Department of Electronics and Communication Engineering, Puducherry Technological University (PTU).

The views expressed in this book do not necessarily represent the views of the editors or policies of the Department of ENT, JIPMER.

The e-book has been published in good faith that the content provided by the authors is original. Every effort has been made to ensure the accuracy of the material. Still, the publisher, printer, and editors will not be responsible for any inadvertent error(s).

The contributors retain the copyright to their works. © All Rights Reserved.

Conflict of interest: None
Funding: Indian Council of Medical Research (ICMR)

This book is a free publication by the Department of ENT, JIPMER.

January 2023

ISBN 978-93-5779-985-0

LICENSE

This work is licensed under a Creative Commons Attribution-Noncommercial-Share Alike 4.0 International License.

Use a camera or QR code reader on your phone to scan this code, or visit the link given below:

https://www.pec.edu/cse/jipmer-ent/index.php

Published by:

Department of ENT, JIPMER.
Puducherry -605006, India
Chief editors

**Dr. Sivaraman G**  
Additional Professor and Head  
Department of ENT  
JIPMER, Puducherry-605006  
Email Id: gsivram@gmail.com

**Dr. Arun Alexander**  
Professor  
Department of ENT  
JIPMER, Puducherry-605006  
Email Id: arun.a@jipmer.edu.in

Associate editors from JIPMER

**Dr. Anuprasad S, Ph.D (Audiology)**  
Tutor in Speech Pathology & Audiology  
Department of ENT  
JIPMER, Puducherry - 605006  
Email Id: anuprasadss@gmail.com

**Mr. Saravanan P**  
Assistant professor in Audiology  
Department of Audiology  
All India Institute of Speech and Hearing  
Mysore, Karnataka -570006  
Email Id: saravananp@aiishmysore.in

**Mrs. Sindhusa Chandran**  
Assistant professor in Speech Sciences  
Department of Speech-Language Sciences  
All India Institute of Speech and Hearing  
Mysore, Karnataka -570006  
Email Id: sindhushac@aiishmysore.in
Ms. Augustina Noel Z
Assistant Professor
Department of Audiology
Vinayaka Mission's Research Foundation
AVMC & H campus, Puducherry - 607402
Email Id: augustina.noel@gmail.com

Ms. Anjana T
Speech Therapist
Shaping Therapies
Thane, Maharashtra-400606
Email Id: anjanat96@gmail.com

Dr. Kalaiarasi Raja
Assistant Professor
Department of ENT
JIPMER, Puducherry-605006
Email Id: kalaairasi004@gmail.com

Dr. Lokesh Kumar P
Assistant Professor
Department of ENT
JIPMER, Puducherry-605006
Email Id: lokesh86p@gmail.com

Dr. Sunil Kumar Saxena
Professor (Retired)
Department of ENT
JIPMER, Puducherry-605006
Email Id: saxenasunil.jipmer@gmail.com

Associate editors from PTU

Dr. Ka. Selvaradjou
Professor
Department of Computer Science and Engineering
Puducherry Technological University
Pillaichavady. Puducherry - 605014
Email Id: selvaraj@ptuniv.edu.in
Dr. K Charuladha
Associate Professor
Department of Computer Science and Engineering
Puducherry Technological University
Pillaichavady, Puducherry - 605014
Email Id: charuladha@ptuniv.edu.in

Dr. R. Sandanalakshmi
Assistant Professor
Department of Electronics and Communication Engineering
Puducherry Technological University
Pillaichavady, Puducherry - 605014
Email Id: sandanalakshmi@ptuniv.edu.in

Mr. Rajesh Kumar R
Project Assistant (Computer Applications)
Indian Council of Medical Research (ICMR)
JIPMER and PTU, Puducherry
Email Id: prjasst_ent_jipmer@pec.edu
ACKNOWLEDGMENTS

With immense gratitude, we would like to thank the Indian Council of Medical Research for approving the project titled “Development and Assessment of a Comprehensive Smartphone / Computer-Based Auditory-Verbal Therapy for Children with Cochlear Implants for Indian Vernaculars” and for making this vision a possibility.

We sincerely thank Dr. Rakesh Aggarwal, Director, JIPMER, for supporting us in this project in JIPMER. We also thank Dr. DM Thappa, Dean Research, Department of Administration, JIPMER, Dr. Lalgudiv Narayanan Dorairajan, Medical Superintendent, Department of Administration, JIPMER, and Prof Dr. Pankaj Kundra, Dean Academic, Department of Administration, JIPMER.

We would like to take this opportunity to thank Prof Dr. Ravi Kumar Chittoria, Professor of Plastic Surgery, Registrar (Academic) and Head of IT Wing & Telemedicine, Department of Plastic Surgery, and Dr. Mahalakshmy T, Additional Professor, and Officer in charge, JIPMER Studio, Department of Preventive and Social Medicine for granting permission to record in the studio. Thank you, Mr. Nithiraj and Mr. Kalaivanan, for allotting time slots and making all the necessary arrangements in the studio so we can record easily and comfortably.

A special thanks to Mr. Ananthakumar T, Audiological Technician, for helping in material development and clearing the doubts in the Tamil language.

We express our deepest gratitude to the following students (MBBS and BASLP students interns): Ms. Aghalya, Mr. Aman, Ms. Sneha, Mr. Aditya Kattimani, Ms. Chandramauli, Ms. Gita, Mr. Alan Paul, Mr. Gursahib, Mr. Aditya, Mr. Mohammed Azmal, Mr. Somil Anshal, Ms. Soumaya Jyoti Raha, Mr. Abdul Hannan, Mr. Kuldeep Meena, Mr. Lokesh Natarajan, Mr. Afreed, Mr. Kashish Arora, Ms. Gita, Mr. Hitesh Das, Ms. Jency L, Ms. Dillieswary, Ms. Divya Bajaj, Mr. Ebenezer Staines, Ms. Suruthi, Mrs. Aishwariya, Mr. Aniruddha, Mr. Kalyan, Ms. Pooja, Ms. Krithika, Mr. Piyush, Ms. Rashmi, Ms. Likitha, Ms. Nilanee, Ms. Pranathi, Mr. Phaneendra, Mr. Bhupendra Kumar, Ms. Uma Shankar, Ms. Prachi Jatin Chunawala, Ms. Ammu Mariam, Ms. Nada, Ms. Mariyam, Mr. John, Mr. Motilal, Mr. Hari Krishna, Mr. Kamlesh Indana, Ms. Pavivela Dhanusree, Ms. Shilpa E, Mr. Santhosh, Ms. Saranya, Mr. Mukilan, Mr. Rajab, Mr. Nikhil, Mr. Kartik Panjwani and Mr. Kowshik V. Thank you so much for helping us with App corrections in English, Tamil, and Hindi languages and for providing your valuable suggestions.

We are thankful to the Residents, Dr. Sharulatha, Dr. Madhu Bala, Dr. Mounika J S, Dr. Anbarasi, Dr. Ashwin, Dr. Kanchan, Dr. Koushika, and Dr. Ramkumar. Thank you for taking time off your busy schedule to review our App and providing corrections and suggestions.
We thank Dr. Vijay Sai Kumar for making arrangements with MBBS interns for the data collection.

We are greatly indebted to the children with cochlear implants and their families for accepting the App. We thank you very much for being patient and finding time to learn and understand the App.

We thank all those who have helped us directly or indirectly with this project. This project was only possible with all your input.

Thank you, 😊
Abstract

Children with Cochlear Implants (CI) need regular auditory training and speech-language therapy sessions to develop their listening and speaking skills. Considering the shortage of professionals for delivering therapy, the increasing number of children implanted, and distance, financial and language constraints, the need to develop a digital version of regular face-to-face therapy arises. With the advancement in technology and its accessibility, even children can become adept at using electronic gadgets (Smartphones, Tablets, Computers) for gaming and learning. Some computer-based Auditory training programs are available for children with hearing impairment. However, these programs are from western countries in their native language, which is difficult to understand or use for Indian children. Therefore, the present manual focuses on the comprehensive smartphone or computer-based application for auditory training developed for children with cochlear implants in Indian vernaculars (Indian English, Tamil, and Hindi), funded by the Indian Council of Medical Research (ICMR). This App enables parents/caregivers of children with CI to provide home training which supplements the regular intervention by hearing care professionals. It allows treating children after cochlear implantation in resource-constrained areas.

Keywords: Cochlear Implants, Auditory Training, Smartphone or Computer Based Application
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter Number</th>
<th>Title</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
<td>1-4</td>
</tr>
<tr>
<td>2</td>
<td>Auditory Awareness</td>
<td>5-8</td>
</tr>
<tr>
<td>3</td>
<td>Auditory Discrimination</td>
<td>9-18</td>
</tr>
<tr>
<td>4</td>
<td>Auditory Identification</td>
<td>19-26</td>
</tr>
<tr>
<td>5</td>
<td>Auditory Comprehension</td>
<td>27-48</td>
</tr>
<tr>
<td>6</td>
<td>Auditory Memory and Sequencing</td>
<td>49-59</td>
</tr>
<tr>
<td>7</td>
<td>Auditory Cognition</td>
<td>60-74</td>
</tr>
<tr>
<td></td>
<td>References</td>
<td>75</td>
</tr>
</tbody>
</table>
1.1 Hearing impairment and its prevalence in children

According to the hearing report by the World Health Organization (2021), more than five percent of the global population, including 43.2 core adults and 3.4 core children, have a moderate degree of hearing loss. This number will increase to 70 core by 2050. It is important to note that a significant share of number is from the Western Pacific Region (13.65 Cores), followed by South-East Asia (10.94 Cores). Verma et al. (2021) reported the prevalence of hearing impairment in India. They found the prevalence of newborn babies was between 1.59 and 8.8 per 1000 births, whereas, in children, it was 6.6% to 16.47%. It is clear from these reports that early identification and early intervention of hearing impairment in children is crucial during their critical period for better speech and language development (Yoshinaga-Itano et al., 1998).

1.2 Cochlear implant and auditory training

The cochlear implant is an electronic device to bypass the damaged part of the ear and directly stimulates the hearing nerve, helping the child to hear sounds. It has two parts; internal and external parts. The internal part is placed surgically inside the inner part of the ear. The external parts capture the sound and send it to the internal part. After the cochlear implantation surgery, the child hears the sound for the first time. It is a unique experience for the child and parents. After implantation, the child needs to undergo a listening or auditory training program to learn to listen through the cochlear implant device. The auditory training helps the child to develop speaking and understanding abilities. Experts recommend cochlear implantation at a younger age for improved speech and language outcomes (Ching et al., 2018).

1.3 Need for a comprehensive smartphone or computer-based application for auditory training

The state of Tamil Nadu performs a total of 3000 cochlear implantation surgeries through government-based insurance schemes (Sampath Kumar & Kameswaran, 2018). The JIPMER hospital, located in Puducherry, performs 50 cochlear implant surgeries annually. These surgeries are through government-based insurance schemes. It shows the volume of surgeries done and the burden of sensorineural hearing impairment. After cochlear implantation, children need regular auditory training and speech-language therapy sessions. With the current shortages of Audiologists and Speech-language pathologists, there is a need for new and innovative ways of delivering therapy to children. In addition, cochlear implant surgeries are done only in major cities. Parents or caregivers from all over the country go to such cities to get their children operated on and attend therapy sessions. Most parents from resource constrained areas find it difficult to travel to the
therapy centers and avail of the services. It is due to the distance from their domicile to the therapy center and its associated financial constraints. There is also a language barrier in availing therapy in a multilingual country such as India. There is also an increasing number of cases lost on follow-up due to these reasons. Considering the shortage of professionals for delivering therapy, the increasing number of children implanted, distance, and financial and language constraints, the need for developing a digital version of live therapy arises. The smartphone or computer-based application will supplement regular face-to-face therapy. It helps the parents train the child back home, thus improving their ability to listen and speak.

1.4 Development of the comprehensive smartphone or computer-based application for auditory training in Indian vernaculars

With the advancement in technology and its accessibility, even children can become adept at using electronic gadgets (Smartphones, Tablets, Computers) for gaming and learning. Due to constraints such as access to therapy clinics and cost-effectiveness, smartphone or computer-based Auditory training programs have become immensely popular (Nanjundaswamy et al., 2018). A few computer-based auditory training programs available for children with hearing impairment include Angel Sound Training (Tiger Speech Technology, Hefei, China), Otto's World of Sounds (Oticon, Somerset, NJ, US), as well as programs offered by individual cochlear implant manufacturers like Advanced Bionics (Valencia, CA, US), MED-EL (Innsbruck, Austria), Cochlear (Sydney, Australia). Western countries develop all these applications in their native language, which is difficult to be understood or used by Indian children.

Therefore, the present manual focuses on the comprehensive computer or smartphone-based application for auditory training developed in Indian vernaculars (Indian English, Tamil, and Hindi) for children with cochlear implants, funded by the Indian Council of Medical Research (ICMR). The App contains a combination of stages of auditory training (Erber, 1982) and the principles of auditory verbal therapy (Estabrooks et al., 2020). This App enables parents/caregivers of children with CI to provide home training which supplements the regular intervention by hearing care professionals. It allows treating children after cochlear implantation in resource-constrained areas.

1.5 General overview of the smartphone or computer-based application

The stages of listening or auditory training are auditory awareness, discrimination, identification, comprehension, memory and sequencing, and auditory cognition, as shown in Figure 1 (Erber, 1982). The child starts the training from auditory awareness and moves on to the following levels till the last stage of auditory training, i.e., cognition. The following are three options common to each stage of auditory training except auditory awareness. The options are preview, training, and testing.
I. Instructions for Preview

Here, the child is introduced to the concepts. A few examples show the child how to perform the task in each listening/auditory training stage. This section may help the child to learn concepts. The child is not required to perform any task in this section. This section is, therefore, not scored.

II. Instructions for Training

Here the child is given practice with the learned concepts. During the training, the child is asked to perform the task and gets feedback for correct and incorrect responses. A thumbs-up symbol is for the correct response, and a thumbs-down symbol is for the incorrect response. There is no scoring in this section.

III. Instructions for Testing

After the training, to evaluate whether the child understands a particular concept, he/she undergoes testing with a scoring system. A score of 1 is for the correct response, and a score of 0 is for the incorrect response. After completing the testing, the child is provided with the total number of correct and incorrect scores so that the child undergoes additional training for the incorrect responses.

Figure 1
Stages of listening or auditory training
1.6 Ling six sounds check – Category 1 in App *(Refer Pg.no 1 in Vol 2)*

The Ling six sounds (ah, ee, oo, mm, ss, sh), as depicted in Figure 2, represent the speech range from low to high pitch or frequency. The 'mm and oo' represent low-pitched sounds, the 'a' represents the mid-pitched sound, and 'ee, ss, and sh' represent high-pitched sounds. To develop listening and speaking skills, the child needs to hear, listen and identify all these six ling sounds. Perform activities with the child where he/she has to indicate whether the ling sound is present or absent. The parents can train the child at home by using stacks of rings wherein they can keep the ring close to the ears, and whenever sound is present, the child has to keep the ring down. The child should not keep the rings down if there is no sound. In this way, the child is made aware of the sounds. Through this activity, the child will learn to listen and only place the ring down after he/she hears the sound. The ling six sound test helps the parents to ensure that the child can hear all the speech sounds since it covers the frequency range of speech before starting the therapy.

**Figure 2**

*Ling six sounds*

<table>
<thead>
<tr>
<th>ah</th>
<th>ee</th>
</tr>
</thead>
<tbody>
<tr>
<td>oo</td>
<td>mm</td>
</tr>
<tr>
<td>ss</td>
<td>sh</td>
</tr>
</tbody>
</table>
2.1 Definition

Auditory awareness is the first step in auditory development. It means whether the child can detect the presence or absence of sound in their environment. After the cochlear implant is switched on, the child may respond to your voice or loud sounds in the background. The child may exhibit various kinds of responses to sounds. These responses include body movements (startle), smiling, head-turning or searching for the sound source, and eye movements/blinks. There can also be quieting responses (decrease in ongoing activity), increasing activity, starting or stopping crying, and changes in facial expression. Observe the child's reactions to various sounds in the environment, such as sounds for household items, vehicle sounds, animal cries, music, and meaningful speech sounds.

2.2 Task

In the auditory awareness activities, your child has to indicate whether the sound is present or absent. The parents can train the child at home by alerting them, turning them towards the sound source, saying 'Listen,' and then naming the sound. Through this, the child understands that sounds have associations and meanings. For example, turn your child to the sound source with an aeroplane and label it. Say, "Listen, I can hear the sound of an aeroplane." It is up in the sky. Look at the aeroplane. Can you hear the sound of an aeroplane? It is an important strategy to develop the skill of localizing sound. In this way, the child is made aware of the sounds. There are two icons shown in the App or website based on whether the audio or sound is present or absent in the video. For example, if the child can hear the sound of the aeroplane, they can select the 'audible' option. If the aeroplane sound is absent, the child can choose the 'silent' option on the screen. The parents can observe their responses for younger children and select on their behalf.

**Auditory awareness or presence or absence of sound - Category 2 in the App** includes five categories. They are:
### a) Environmental sounds

It includes a broad range of environmental sounds the child hears around them daily, such as door opening and fan noise.

<table>
<thead>
<tr>
<th>Sl.no</th>
<th>Environmental sounds</th>
<th>Sl.no</th>
<th>Environmental sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Door Knock</td>
<td>11</td>
<td>Mobile ringtone</td>
</tr>
<tr>
<td>2</td>
<td>Door Opening</td>
<td>12</td>
<td>Temple bell ringing</td>
</tr>
<tr>
<td>3</td>
<td>Door Closing</td>
<td>13</td>
<td>Hand Clap</td>
</tr>
<tr>
<td>4</td>
<td>Tap Water Flowing</td>
<td>14</td>
<td>Rain pouring</td>
</tr>
<tr>
<td>5</td>
<td>Fan Noise</td>
<td>15</td>
<td>Bird Chirping</td>
</tr>
<tr>
<td>6</td>
<td>Fire Crackers</td>
<td>16</td>
<td>Door Bell</td>
</tr>
<tr>
<td>7</td>
<td>Pressure Cooker Whistling</td>
<td>17</td>
<td>Hammering</td>
</tr>
<tr>
<td>8</td>
<td>Mixer /Grinder</td>
<td>18</td>
<td>Glass breaking</td>
</tr>
<tr>
<td>9</td>
<td>Water Boiling</td>
<td>19</td>
<td>Yawning</td>
</tr>
<tr>
<td>10</td>
<td>Thunder</td>
<td>20</td>
<td>TV noise</td>
</tr>
</tbody>
</table>

### b) Vehicle sounds

It includes different types of vehicles and their associated sounds, such as 'motorcycle' and 'helicopter.'

<table>
<thead>
<tr>
<th>Sl.no</th>
<th>Vehicle sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Car Driving Past</td>
</tr>
<tr>
<td>2</td>
<td>Car Horn</td>
</tr>
<tr>
<td>3</td>
<td>Motor Cycle</td>
</tr>
<tr>
<td>4</td>
<td>Aeroplane</td>
</tr>
<tr>
<td>5</td>
<td>Train Passing</td>
</tr>
<tr>
<td>6</td>
<td>Ambulance Alarm</td>
</tr>
<tr>
<td>7</td>
<td>Auto Horn</td>
</tr>
<tr>
<td>8</td>
<td>Bus Horn</td>
</tr>
<tr>
<td>9</td>
<td>Cycle Ringing</td>
</tr>
<tr>
<td>10</td>
<td>Helicopter</td>
</tr>
</tbody>
</table>
c) *Animal sounds*

It includes animals such as 'cat' and 'cow' and their associated cries.

<table>
<thead>
<tr>
<th>Sl.no</th>
<th>Animal sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dog barking</td>
</tr>
<tr>
<td>2</td>
<td>Rooster</td>
</tr>
<tr>
<td>3</td>
<td>Horse galloping</td>
</tr>
<tr>
<td>4</td>
<td>Cat Meow</td>
</tr>
<tr>
<td>5</td>
<td>Cow Moo</td>
</tr>
<tr>
<td>6</td>
<td>Elephant</td>
</tr>
<tr>
<td>7</td>
<td>Fly Buzz</td>
</tr>
<tr>
<td>8</td>
<td>Duck Quack</td>
</tr>
<tr>
<td>9</td>
<td>Monkey</td>
</tr>
<tr>
<td>10</td>
<td>Wolf Howling</td>
</tr>
</tbody>
</table>

d) *Instrumental sounds*

It includes musical instruments and their associated sound, such as 'Guitar' and 'Violin.'

<table>
<thead>
<tr>
<th>Sl.no</th>
<th>Musical instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Piano</td>
</tr>
<tr>
<td>2</td>
<td>Drum</td>
</tr>
<tr>
<td>3</td>
<td>Guitar</td>
</tr>
<tr>
<td>4</td>
<td>Violin</td>
</tr>
<tr>
<td>5</td>
<td>Veena</td>
</tr>
<tr>
<td>6</td>
<td>Drum</td>
</tr>
<tr>
<td>7</td>
<td>Mridangam</td>
</tr>
<tr>
<td>8</td>
<td>Harmonium</td>
</tr>
</tbody>
</table>
e) Learning to listen sounds

These sounds are easy to hear and associated with a particular object, adding meaning to the sounds and following normal language development. For example, associate the vehicle 'bus' with the sound 'Buhbuh' and the animal 'cat' with the sound 'Meoww.'

<table>
<thead>
<tr>
<th>Sl.no</th>
<th>Learning to listen to sounds</th>
<th>Sl.no</th>
<th>Learning to listen to sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aaaaaah</td>
<td>9</td>
<td>Mm</td>
</tr>
<tr>
<td>2</td>
<td>Buh</td>
<td>10</td>
<td>Ee</td>
</tr>
<tr>
<td>3</td>
<td>Ooo Eee Ooo Eee</td>
<td>11</td>
<td>Meoww</td>
</tr>
<tr>
<td>4</td>
<td>Brrrrrr</td>
<td>12</td>
<td>Tick</td>
</tr>
<tr>
<td>5</td>
<td>Pu</td>
<td>13</td>
<td>Moo</td>
</tr>
<tr>
<td>6</td>
<td>Chchchch</td>
<td>14</td>
<td>Baa</td>
</tr>
<tr>
<td>7</td>
<td>Sh</td>
<td>15</td>
<td>Woof</td>
</tr>
<tr>
<td>8</td>
<td>Ss</td>
<td>16</td>
<td>Quack</td>
</tr>
<tr>
<td></td>
<td>Aeroplane</td>
<td></td>
<td>Ice cream</td>
</tr>
<tr>
<td></td>
<td>Bus</td>
<td></td>
<td>Brushing</td>
</tr>
<tr>
<td></td>
<td>Ambulance</td>
<td></td>
<td>Cat</td>
</tr>
<tr>
<td></td>
<td>Car</td>
<td></td>
<td>Clock</td>
</tr>
<tr>
<td></td>
<td>Boat</td>
<td></td>
<td>Cow</td>
</tr>
<tr>
<td></td>
<td>Train</td>
<td></td>
<td>Sheep</td>
</tr>
<tr>
<td></td>
<td>Whisper</td>
<td></td>
<td>Dog</td>
</tr>
<tr>
<td></td>
<td>Snake</td>
<td></td>
<td>Duck</td>
</tr>
</tbody>
</table>
Chapter 3
AUDITORY DISCRIMINATION
(Difference of sounds)

3.1 Definition

It is the ability to tell the difference between sounds, i.e., whether they are the same or different. After the awareness stage, the child begins to understand the sound differences. This ability is called auditory discrimination. They will be able to understand the difference between loud and quiet sounds, high and low-pitched sounds, long and short sounds, and vowel and consonant sounds. Auditory discrimination plays an essential role in language and reading skills development.

3.2 Task

The parents must expose the child to two sounds that may be the same or different. The child has to listen to the pair of sounds and indicate whether both sounds are the same or different. Suppose the child cannot perform this task. In that case, the parents can move to the next category, "Auditory Identification."

I. Instructions for Preview

Here, the child is introduced to the concept of auditory discrimination. A few examples show the child how to perform the task and help the child learn the concept. For example, the words 'Back' and 'Back' are the same. Therefore, the pictures consist of two circles that appear in the same colour (blue) to represent that the sounds are the same. The words 'Book' and 'Took' are different from each other. Therefore, the pictures consist of two circles that appear in different colours (red and yellow) to represent different sounds.

II. Instructions for Training

Here the child is given practice with the learned concept. During the training, the child gets feedback for correct and incorrect responses. For example, when the audio of the words' Back' and 'Back' is played, two choices with pictures are displayed. These choices represent identical sounds with the same coloured circles (blue) and different with different coloured circles (red and yellow). The child has to choose the picture with circles that are the same (blue) as the correct response. A thumbs-up symbol is for the correct answer, and a thumbs-down symbol is for the incorrect answer. There is no scoring in this section.
III. Instructions for Testing

To evaluate whether the child understands the concept of auditory discrimination, they undergo testing with a scoring system. A score of 1 is for the correct answer, and a score of 0 is for the incorrect answer. For example, if the child chooses the pictures with the same coloured circles for the audio 'Ball – Ball,' then a score of 1 is given for this correct response. After completing the testing, the child is provided with the total number of correct and incorrect scores so that the child goes for additional training for the incorrect responses.

Auditory discrimination or difference of sounds - Category 3 in the App (Refer to Pg.no 14 in Vol 2) includes five categories. They are:

a) Short and Long words

There will be two words containing vowels that differ in duration. One vowel is of short duration, and the other vowel is of long duration. For example, the words 'Sit' and 'Seat' differ in the duration of the vowel, wherein one vowel is short duration as in 'Sɪt.' The other vowel is long duration, as in 'Sɛat.'

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bit-beet</td>
<td>10</td>
<td>This-these</td>
<td>19</td>
<td>Mill-meal</td>
<td>28</td>
</tr>
<tr>
<td>2</td>
<td>Sinseen</td>
<td>11</td>
<td>Seek-sick</td>
<td>20</td>
<td>Pill-peal</td>
<td>29</td>
</tr>
<tr>
<td>3</td>
<td>Sell-sale</td>
<td>12</td>
<td>Whit-wheat</td>
<td>21</td>
<td>List-least</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>Lick-leak</td>
<td>13</td>
<td>Kin-keen</td>
<td>22</td>
<td>Let-late</td>
<td>31</td>
</tr>
<tr>
<td>5</td>
<td>Sit-seat</td>
<td>14</td>
<td>Mate-met</td>
<td>23</td>
<td>Rip-reap</td>
<td>32</td>
</tr>
<tr>
<td>6</td>
<td>Pick-peek</td>
<td>15</td>
<td>Dip-deep</td>
<td>24</td>
<td>Lip-leap</td>
<td>33</td>
</tr>
<tr>
<td>7</td>
<td>Hit-heat</td>
<td>16</td>
<td>Tin-teen</td>
<td>25</td>
<td>Hip-heap</td>
<td>34</td>
</tr>
<tr>
<td>8</td>
<td>Fool-full</td>
<td>17</td>
<td>Ship-sheep</td>
<td>26</td>
<td>Fit-feet</td>
<td>35</td>
</tr>
<tr>
<td>9</td>
<td>Bin-bean</td>
<td>18</td>
<td>Pull-pool</td>
<td>27</td>
<td>Hill-heal</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10
b) **High and Low-Frequency words or Words differing in pitch**

Here the child is trained to differentiate between high-frequency (high pitch) and low-frequency (low pitch) vowels and consonants.

1. **Words differing in pitch or frequency** – consonants

The words contain high-pitched or high-frequency and low-pitched or low-frequency consonants. The low-pitched consonants are /p/, /b/, /m/, and /n/, and the high-pitched consonants are /t/, /d/, /ð/, and /s/. The child must tell whether the words have the same or different consonants. For example, the words' Sauce' and 'Nose' are different in consonant pitch, wherein one consonant is high pitch, as in 'Sauce,' and the other is low pitch, as in 'Nose.'

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Book-took</td>
<td>27</td>
<td>Hit/bit</td>
<td>53</td>
<td>heap/peep</td>
</tr>
<tr>
<td>2</td>
<td>Bun-fun</td>
<td>28</td>
<td>Pat-chat</td>
<td>54</td>
<td>they/pay</td>
</tr>
<tr>
<td>3</td>
<td>Few/new</td>
<td>29</td>
<td>Boy-toy</td>
<td>55</td>
<td>Dig/pig</td>
</tr>
<tr>
<td>4</td>
<td>heap/peep</td>
<td>30</td>
<td>Bark-dark</td>
<td>56</td>
<td>Pear-fear</td>
</tr>
<tr>
<td>5</td>
<td>Bat/fat</td>
<td>31</td>
<td>Shall/mall</td>
<td>57</td>
<td>Meal-deal</td>
</tr>
<tr>
<td>6</td>
<td>Fan/man</td>
<td>32</td>
<td>Make-fake</td>
<td>58</td>
<td>Poll-fall</td>
</tr>
<tr>
<td>7</td>
<td>Mad/sad</td>
<td>33</td>
<td>Peel-feel</td>
<td>59</td>
<td>Seal-meal</td>
</tr>
<tr>
<td>8</td>
<td>Fall/ball</td>
<td>34</td>
<td>Few-new</td>
<td>60</td>
<td>Met-set</td>
</tr>
<tr>
<td>9</td>
<td>Mail-fail</td>
<td>35</td>
<td>Nail-tail</td>
<td>61</td>
<td>Mask-task</td>
</tr>
<tr>
<td>10</td>
<td>Nose-sauce</td>
<td>36</td>
<td>Best-test</td>
<td>62</td>
<td>Pack-sack</td>
</tr>
<tr>
<td>11</td>
<td>Bait-fate</td>
<td>37</td>
<td>Note-dot</td>
<td>63</td>
<td>Nest-fest</td>
</tr>
<tr>
<td>12</td>
<td>Will-chill</td>
<td>38</td>
<td>Bill-fill</td>
<td>64</td>
<td>Sack-back</td>
</tr>
<tr>
<td>13</td>
<td>Take-bake</td>
<td>39</td>
<td>Pot-hot</td>
<td>65</td>
<td>Shoot-boot</td>
</tr>
<tr>
<td>14</td>
<td>Chair-pair</td>
<td>40</td>
<td>Hole-mole</td>
<td>66</td>
<td>Born-horn</td>
</tr>
<tr>
<td>15</td>
<td>Band-sand</td>
<td>41</td>
<td>Post-cost</td>
<td>67</td>
<td>Fest-best</td>
</tr>
<tr>
<td>16</td>
<td>Mate-hate</td>
<td>42</td>
<td>Chin-win</td>
<td>68</td>
<td>Ton-won</td>
</tr>
<tr>
<td>17</td>
<td>Make-fake</td>
<td>43</td>
<td>Match-hatch</td>
<td>69</td>
<td>Paste-taste</td>
</tr>
<tr>
<td>18</td>
<td>Seek-meek</td>
<td>44</td>
<td>Fuse-news</td>
<td>70</td>
<td>Hiss-miss</td>
</tr>
<tr>
<td>19</td>
<td>Noise-choice</td>
<td>45</td>
<td>Nice-size</td>
<td>71</td>
<td>Mute-suit</td>
</tr>
<tr>
<td>20</td>
<td>Nice/dice</td>
<td>46</td>
<td>Wake-sake</td>
<td>72</td>
<td>Chick-pick</td>
</tr>
<tr>
<td>21</td>
<td>More-for</td>
<td>47</td>
<td>For-wore</td>
<td>73</td>
<td>Worm-form</td>
</tr>
</tbody>
</table>
2. **Words differing in pitch or frequency – vowels**

The words contain high-pitched or high-frequency and low-pitched or low-frequency vowels. The high-pitched vowels are /i/, /ɪ/, and /ɛ/, and the low-pitched vowels are /o/, /u/, and /ʌ/. The child has to tell whether the words containing vowels are the same or different. For example, the words 'Peel' and 'Pool' are different in pitch, wherein one vowel is high pitch as in 'Peel,' and the other is low pitch as in 'Pool.'

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mean-moon</td>
<td>10</td>
<td>Sheet-shoot</td>
<td>19</td>
<td>Leak-lock</td>
</tr>
<tr>
<td>2</td>
<td>Pit-put</td>
<td>11</td>
<td>Beat-boot</td>
<td>20</td>
<td>Bleak-block</td>
</tr>
<tr>
<td>3</td>
<td>Doll-deal</td>
<td>12</td>
<td>Heat-hot</td>
<td>21</td>
<td>Creek-crook</td>
</tr>
<tr>
<td>4</td>
<td>Tease-toss</td>
<td>13</td>
<td>She-show</td>
<td>22</td>
<td>Weak-woke</td>
</tr>
<tr>
<td>6</td>
<td>Seal-sole</td>
<td>15</td>
<td>Chalk-cheek</td>
<td>24</td>
<td>Loop-leap</td>
</tr>
<tr>
<td>7</td>
<td>Feel-fall</td>
<td>16</td>
<td>Soon-seen</td>
<td>25</td>
<td>Boast-beast</td>
</tr>
<tr>
<td>8</td>
<td>Food-feed</td>
<td>17</td>
<td>Peel-pool</td>
<td>26</td>
<td>Cheap-chop</td>
</tr>
<tr>
<td>9</td>
<td>Hip-hop</td>
<td>18</td>
<td>Neat-note</td>
<td>27</td>
<td>Rope-reap</td>
</tr>
</tbody>
</table>

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>Cope-keep</td>
<td>37</td>
<td>Bill-bull</td>
<td>46</td>
<td>Seat-sought</td>
</tr>
<tr>
<td>29</td>
<td>Seek-soak</td>
<td>38</td>
<td>Boat-beat</td>
<td>47</td>
<td>Lost-least</td>
</tr>
<tr>
<td>30</td>
<td>Nose-niece</td>
<td>39</td>
<td>Meal-mole</td>
<td>48</td>
<td>Load-lead</td>
</tr>
<tr>
<td>31</td>
<td>Keep-coup</td>
<td>40</td>
<td>Feet-foot</td>
<td>49</td>
<td>Lap-leap</td>
</tr>
</tbody>
</table>
c) Minimal Pairs or Similar words

These are pairs of words differing in one sound and have distinct meanings. The child learns to differentiate the pairs in terms of place, manner and voicing characteristics of the two sounds. For example, the sound /b/ in the word 'bat' and the sound /k/ in the word 'cat' differ in place, manner, and voicing characteristics. It consists of three levels.

<table>
<thead>
<tr>
<th>1</th>
<th>Rat/cat</th>
<th>22</th>
<th>Boy/toy</th>
<th>43</th>
<th>Date/gate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Pat/sat</td>
<td>23</td>
<td>Book/took</td>
<td>44</td>
<td>Kite/bite</td>
</tr>
<tr>
<td>3</td>
<td>Mat/fat</td>
<td>24</td>
<td>Bark/dark</td>
<td>45</td>
<td>Honey/money</td>
</tr>
<tr>
<td>4</td>
<td>Sit/lit</td>
<td>25</td>
<td>Took /cook</td>
<td>46</td>
<td>Jeep/sheep</td>
</tr>
<tr>
<td>5</td>
<td>Kit/fit</td>
<td>26</td>
<td>Ball/fall</td>
<td>47</td>
<td>Pale/male</td>
</tr>
<tr>
<td>6</td>
<td>Cap/lap</td>
<td>27</td>
<td>Tall/call</td>
<td>48</td>
<td>Shall/mall</td>
</tr>
<tr>
<td>7</td>
<td>Map/rope</td>
<td>28</td>
<td>Tool/cool</td>
<td>49</td>
<td>Rail/fail</td>
</tr>
<tr>
<td>8</td>
<td>Man/pan</td>
<td>29</td>
<td>Boat/goat</td>
<td>50</td>
<td>Late/rate</td>
</tr>
<tr>
<td>9</td>
<td>Can/fan</td>
<td>30</td>
<td>Dear/fear</td>
<td>51</td>
<td>Poll-doll</td>
</tr>
<tr>
<td>10</td>
<td>Run/gun</td>
<td>31</td>
<td>Pet/net</td>
<td>52</td>
<td>Row/bow</td>
</tr>
<tr>
<td>11</td>
<td>Bun/fun</td>
<td>32</td>
<td>Make/fake</td>
<td>53</td>
<td>Care/fare</td>
</tr>
<tr>
<td>12</td>
<td>Rain/pain</td>
<td>33</td>
<td>Deep/peep</td>
<td>54</td>
<td>Core/more</td>
</tr>
<tr>
<td>13</td>
<td>Rest/fest</td>
<td>34</td>
<td>Day/pay</td>
<td>55</td>
<td>Pear/fear</td>
</tr>
<tr>
<td>14</td>
<td>Pack/back</td>
<td>35</td>
<td>Dig/pig</td>
<td>56</td>
<td>Car/far</td>
</tr>
<tr>
<td>15</td>
<td>Mark/park</td>
<td>36</td>
<td>Red/bed</td>
<td>57</td>
<td>Few/new</td>
</tr>
<tr>
<td>16</td>
<td>Fame/came</td>
<td>37</td>
<td>Game/name</td>
<td>58</td>
<td>Half/calf</td>
</tr>
<tr>
<td>17</td>
<td>Lame/same</td>
<td>38</td>
<td>Mind/kind</td>
<td>59</td>
<td>Shoot/root</td>
</tr>
<tr>
<td>18</td>
<td>Pick/kick</td>
<td>39</td>
<td>Sing/king</td>
<td>60</td>
<td>Foot/loot</td>
</tr>
</tbody>
</table>
I.  **Level 1**

The pair of words differs in all three characteristics: place, manner, and voicing. For example, the sound /m/ in the word 'mat' and the sound /f/ in the word 'fat' differ in place, manner, and voicing characteristics.

<table>
<thead>
<tr>
<th></th>
<th>Mat/fat</th>
<th></th>
<th>Jeep/sheep</th>
<th></th>
<th>Mad/had</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Map/rope</td>
<td>2</td>
<td>Shall/mall</td>
<td>10</td>
<td>Few/new</td>
</tr>
<tr>
<td>3</td>
<td>Bun/fun</td>
<td>6</td>
<td>Core/more</td>
<td>12</td>
<td>Rock/mock</td>
</tr>
<tr>
<td>7</td>
<td>Make/fake</td>
<td>15</td>
<td>Red/bed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Honey/money</td>
<td>16</td>
<td>Mind/kind</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

II.  **Level 2**

The pair of words differ in any two characteristics of the place, manner, and voicing. For example, the sound /m/ in the word 'man' and the sound /p/ in the word 'pan' differ in manner and voicing characteristics.

<table>
<thead>
<tr>
<th></th>
<th>Rat/cat</th>
<th></th>
<th>Boy/toy</th>
<th></th>
<th>Rail/fail</th>
<th></th>
<th>Game/name</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Pat/sat</td>
<td>9</td>
<td>Book/took</td>
<td>16</td>
<td>Peel/feel</td>
<td>23</td>
<td>Sing/king</td>
</tr>
<tr>
<td>3</td>
<td>Kit/fit</td>
<td>10</td>
<td>Bark/dark</td>
<td>17</td>
<td>Care/fare</td>
<td>24</td>
<td>Peel/feel</td>
</tr>
<tr>
<td>4</td>
<td>Cap/lap</td>
<td>11</td>
<td>Rain/pain</td>
<td>18</td>
<td>Pear/fear</td>
<td>25</td>
<td>Car/far</td>
</tr>
<tr>
<td>5</td>
<td>Man/pan</td>
<td>12</td>
<td>Deep/peep</td>
<td>19</td>
<td>Mark/park</td>
<td>26</td>
<td>Half/calf</td>
</tr>
<tr>
<td>6</td>
<td>Can/fan</td>
<td>13</td>
<td>Day/pay</td>
<td>20</td>
<td>Fame/came</td>
<td>27</td>
<td>Shoot/root</td>
</tr>
<tr>
<td>7</td>
<td>Run/gun</td>
<td>14</td>
<td>Kite/bite</td>
<td>21</td>
<td>Lame/same</td>
<td>28</td>
<td>Foot/loot</td>
</tr>
</tbody>
</table>
III. Level 3

The pair of words differs in one characteristic: place, manner, and voicing. For example, the sound /m/ in the word 'mine' and the sound /n/ in the word 'nine' differ only in place characteristics.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sit/lit</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>Took /cook</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Tall/call</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>Tool/cool</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Boat/goat</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Date/gate</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Pack/back</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Pick/kick</td>
<td></td>
</tr>
</tbody>
</table>

d) Length of utterances (Monosyllable v/s syllable or trisyllable or multi-syllable words)

Monosyllable words are words with one syllable, such as 'Car.' Bisyllabic words are words with two syllables, such as 'Car-rot.' Trisyllabic words are words with three syllables, such as 'ba-na-naa. Multi-syllable words are words with more than three syllables, such as 'cau-li-flo-wer.' The parent must present the child with words that differ in length, that is, short and long words. The child must listen to the words carefully and say whether they are the same or different.

I. Level 1

a) Monosyllable v/s polysyllable.

The child has to differentiate between monosyllable and polysyllable words. For example, 'Car' and 'he-li-co-p-ter.'

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Car/helicopter</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>Pea/cauliflower</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>Bus/auto-rickshaw</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Cat/congratulations</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>Lip/comedian</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>Tap/kindergarten</td>
<td>13</td>
</tr>
<tr>
<td>7</td>
<td>Fat/caterpillar</td>
<td>14</td>
</tr>
</tbody>
</table>
II. Level 2

b) Monosyllable v/s trisyllable.

The child has to differentiate between monosyllable and trisyllable words. For example, 'Kite' and 'Ba-na-naa.'

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Name/radio</td>
<td>9</td>
<td>Sun/tomato</td>
</tr>
<tr>
<td>2</td>
<td>Kite/banana</td>
<td>10</td>
<td>Gun/papaya</td>
</tr>
<tr>
<td>3</td>
<td>Watch/magician</td>
<td>11</td>
<td>Boy/buffalo</td>
</tr>
<tr>
<td>4</td>
<td>Pain/badminton</td>
<td>12</td>
<td>Climb/pigeon</td>
</tr>
<tr>
<td>5</td>
<td>Game/afternoon</td>
<td>13</td>
<td>Rub/computer</td>
</tr>
<tr>
<td>6</td>
<td>Pat/pineapple</td>
<td>14</td>
<td>Frog/vehicle</td>
</tr>
<tr>
<td>7</td>
<td>Fat/newspaper</td>
<td>15</td>
<td>Horse/lollipop</td>
</tr>
<tr>
<td>8</td>
<td>Night/uniform</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

c) Bisyllable v/s polysyllable

The child has to differentiate between Bisyllable and polysyllable words. For example, 'Sister' and 'Su-per-mar-ket.'

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Finger/motorcycle</td>
<td>8</td>
<td>Ginger/watermelon</td>
</tr>
<tr>
<td>2</td>
<td>Rabbit/vegetable</td>
<td>9</td>
<td>Jungle/strawberry juice</td>
</tr>
<tr>
<td>3</td>
<td>Rainbow/intelligent</td>
<td>10</td>
<td>Carrot/washerwoman</td>
</tr>
<tr>
<td>4</td>
<td>Spider/railway station</td>
<td>11</td>
<td>Farmer/helicopter</td>
</tr>
<tr>
<td>5</td>
<td>Window/January</td>
<td>12</td>
<td>Flower/pomegranate</td>
</tr>
<tr>
<td>6</td>
<td>Funny/Appearance</td>
<td>13</td>
<td>Kiwi/February</td>
</tr>
<tr>
<td>7</td>
<td>Honey/air conditioner</td>
<td>14</td>
<td>Sister/supermarket</td>
</tr>
</tbody>
</table>
III. Level 3  

d) Monosyllable v/s bisyllable.  
The child has to differentiate between Monosyllable v/s syllable words. For example, 'Blue' and 'Winter.'

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Go/chocolate</td>
<td>9</td>
<td>Phone/mobile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Lift/shadow</td>
<td>10</td>
<td>Mat/kitten</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Van/basket</td>
<td>11</td>
<td>Blue/balloon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Red/yellow</td>
<td>12</td>
<td>Milk/listen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Blue/winter</td>
<td>13</td>
<td>Plant/duckling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Sit/money</td>
<td>14</td>
<td>Play/colour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Game/mango</td>
<td>15</td>
<td>Bell/salad</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Waste/letter</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

e) Bisyllable v/s trisyllable  
The child has to differentiate between Bisyllable v/s trisyllable words. For example, 'Birth-day' and 'Fam-i-ly.'

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Table/radio</td>
<td>9</td>
<td>Biscuit/hospital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Magic/eraser</td>
<td>10</td>
<td>Flower/pigeon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Golden/cucumber</td>
<td>11</td>
<td>Mango/memory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Monkey/butterfly</td>
<td>12</td>
<td>Water/honeycomb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Donkey/bus driver</td>
<td>13</td>
<td>Camel/camera</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Giraffe/beautiful</td>
<td>14</td>
<td>Funny/newspaper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Birthday/family</td>
<td>15</td>
<td>Parrot/umbrella</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Butter/honeybee</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
f) **Trisyllable v/s polysyllable**

The child has to differentiate between Trisyllable v/s polysyllable words. For example, 'Shop-keep-er' and 'Pho-tog-ra-pher.'

<table>
<thead>
<tr>
<th></th>
<th>Ambulance/disappearance</th>
<th>8</th>
<th>Sunflower/binocular</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Chimpanzee/calculator</td>
<td>9</td>
<td>Shopkeeper/photographer</td>
</tr>
<tr>
<td>3</td>
<td>Bullock cart/photography</td>
<td>10</td>
<td>Remember/February</td>
</tr>
<tr>
<td>4</td>
<td>Together/watermelon</td>
<td>11</td>
<td>Bullock cart/discrimination</td>
</tr>
<tr>
<td>5</td>
<td>Strawberry/alligator</td>
<td>12</td>
<td>Elephant/avocado</td>
</tr>
<tr>
<td>6</td>
<td>Grasshopper/elevator</td>
<td>13</td>
<td>Waterfall/hippopotamus</td>
</tr>
</tbody>
</table>

|   | 7 | Hibiscus/rhinoceros    |

**e) Musical Instruments**

It includes different musical instruments that produce various musical notes, and the child has to differentiate whether they are the same or different. For example, 'Flute' and 'Guitar.'

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>Cymbal/ Crash</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>Drum/ Flute</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Flute/ Guitar</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>Flute/ Player</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>Guitar/ Piano</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>Harmonium/ Harmonium</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>Guitar/ Harmonium</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>Mirudangam/ Mirudangam</td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td>Mirudangam/ Piano</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>Violin/ Drum</td>
</tr>
</tbody>
</table>
Chapter 4
AUDITORY IDENTIFICATION
(Identifying words)

4.1 Definition

It is the ability to recognize spoken utterances. The child has to point, repeat or write what they have heard. The child attaches meaning to a sound by identifying what object is making the sound or attaches a word to a picture/object. When the parent says the word, the child has to listen and select the correct picture from an array of pictures. Here, the child should recognize the sound and source of the sound.

4.2 Task

The parents must expose the child to the words in the App with pictures. The child has to listen and recognize the word and choose the word among the images given. For example, the parent plays the word 'Cat,' and after listening to the word, the child has to select or point to the picture of a cat among other pictures.

I. Instructions for Preview

Here, the child is introduced to the concept of auditory identification. A few examples show the child how to perform the task and help the child learn the concept. For example, the word 'Ankle' audio will be played and displayed in a picture.

II. Instructions for Training

Here, the child is given practice with the learned concept and gets feedback for correct and incorrect responses. In the training session, there are levels according to the number of choices offered. In the first level, there will be two choices. For example, for the audio with the word 'Ears,' two picture options, i.e., 'Ears' and 'Eye,' are given. In the second level, there will be three choices. For example, for the audio with the word 'Lips,' three picture options, i.e., 'Lips,' 'Feet,' and 'Nose,' are given. After completing the first level, the child can move to the next level. The child has to carefully listen to the audio of the word and select or point it out among the two or three choices given. A thumbs-up symbol is for the correct response, and a thumbs-down symbol is for the incorrect answer. There is no scoring in this section.
III. Instructions for Testing

To evaluate whether the child understands the concept of auditory identification, they undergo testing with a scoring system. A score of 1 is for the correct response, and a score of 0 is for the incorrect answer. For example, suppose the child chooses the picture 'Ears' after listening to the audio 'Ears,' among other images. In that case, a score of 1 is for this correct response. After completing the testing, the child is provided with the total number of correct and incorrect scores so that the child goes for additional training for the incorrect responses.

Auditory Identification or Identifying words - Category 4 in the App (Refer to Pg.no 18 in Vol 2) has 24 categories. It includes the following: body parts, fruits, animals and birds, vegetables, vehicles, action verbs, colors, trees and flowers, shapes, public places, occupation, food items, names of things in the house, gender, part of the day, clothing, emotions/feelings, festivals, national symbols of India, habits, identifying family members, identification of simple words differing in frequency characteristics, identification of minimal pairs which differ in the frequency characteristics of vowels and identification of pair of words which differ in the frequency characteristics of consonants.

a) **Body parts** (Refer Pg.no 19 in Vol 2)

**Gross**

Eye, ear, nose, tongue, lips, mouth, head, hand, legs, stomach, and hair.

**Fine**

Eyebrow, chin, nail, cheek, elbow, knee, sole, ankle, neck, hip, toe, foot, finger, chest, teeth.

*Level 1* - Refer to Pg.no 37 in Vol 2

*Level 2* - Refer to Pg.no 46 in Vol 2

b) **Fruits** (Refer Pg.no 54 in Vol 2)

Apple, mango, banana, grapes, guava, pomegranate, jackfruit, orange, papaya, pineapple, watermelon.

**Other fruits**

Strawberry, avocado, cherry, passion fruit, kiwi, sapota, plum, mulberry, muskmelon, lychee, gooseberry, dragon fruit, custard apple, mango, cashew apple, and rambutan.

*Level 1* - Refer to Pg.no 85 in Vol 2

*Level 2* - Refer to Pg.no 102 in Vol 2
c) Animals and birds (Refer Pg.no 113 in Vol 2)

Animals - Refer to Pg.no 114 in Vol 2
Dog, cat, cow, lion, sheep, hen, cow, tiger, goat, elephant, rat, frog, deer, monkey, fish, tortoise, horse, donkey, snake, bull, rabbit, buffalo.

Level 1 (Refer Pg.no 153 in Vol 2)

Level 2 (Refer to Pg.no 163 in Vol 2)

Birds - Refer Pg.no 170 in Vol 2
Bulbul, cuckoo, crow, pigeon, kingfisher, eagle, owl, woodpecker, parrots, hen.

Level 1 - Refer to Pg.no 181 in Vol 2
Level 2 - Refer to Pg.no 188 in Vol 2

d) Vegetables (Refer Pg.no 197 in Vol 2)
Carrot, tomato, ginger, brinjal, potato, beans, drumstick, cabbage, cauliflower, spinach, curry leaves, capsicum, pumpkin, chilly, peas, radish, cucumber, bitter gourd, bottle gourd, baby corn, onion, garlic, beetroot, mushroom, turnip, lady’s finger, coriander, yam.

Level 1 - Refer to Pg.no 224 in Vol 2

Level 2 - Refer to Pg.no 235 in Vol 2

e) Vehicles (Refer Pg.no 243 in Vol 2)
Bus, car, bike, auto, scooter, cycle, truck, train, aeroplane, van, ambulance, ship, boat, helicopter, fire engine, carriage, taxi/cab, tricycle, dump truck, jet.

Level 1 - Refer to Pg.no 259 in Vol 2

Level 2 - Refer to Pg.no 268 in Vol 2

f) Action verbs (Refer to Pg.no 275 in Vol 2)
Jump, crawl, eat, drink, go, stop, run, walk, sleep, wash, kiss, open, close, push, pull, play, hug, tickle, dance, shake, sit, stand, throw, catch, and come, read, write, teach, help, swim, wakeup, sweep, fight, exercise, listen, sing, dance, ride, cry, fall, comb, bathe, clap, smell, sew, cook, paint, crawl, dream, talk, fly, climb, pluck.

Level 1 - Refer to Pg.no 311 in Vol 2

Level 2 - Refer to Pg.no 324 in Vol 2

g) Colours (Refer Pg.no 337 in Vol 2)

Primary colours
Red, yellow, blue.

Secondary colours
Orange, green, violet.
Other colours

Purple, grey, brown, white, black, rose, pink, magenta, peach, and golden.

Level 1 - Refer to Pg.no 353 in Vol 2

Level 2 - Refer to Pg.no 363 in Vol 2

h) Flowers and trees (Refer Pg.no 372 in Vol 2)

Flowers

Rose, jasmine, hibiscus, lotus, Lilly, sunflower, marigold, tulip, daisy, orchids.

Trees

Tamarind tree, fig tree, coconut tree, banyan tree, neem tree, peepal tree, mango tree, palm tree, papaya tree, jack tree, orange tree, plantain tree, and apple tree.

Level 1 - Refer to Pg.no 395 in Vol 2

Level 2 - Refer to Pg.no 410 in Vol 2

i) Shapes (Refer Pg.no 423 in Vol 2)

Round, rectangle, square, triangle, star, cone, cylinder, cube, heart, cross, arrow, oval, pyramid.

Level 1 - Refer to Pg.no 436 in Vol 2

Level 2 - Refer to Pg.no 444 in Vol 2

j) Public places (Refer Pg.no 452 in Vol 2)

Bus stand, railway station, airport, shopping mall, park, shops, market, hotel, cinema hall, temple, church, mosque, beach, and movie theatre.

Level 1 - Refer to Pg.no 466 in Vol 2

Level 2 - Refer to Pg.no 473 in Vol 2

k) Occupation (Refer Pg.no 478 in Vol 2)

Doctor, nurse, teacher, artist, cobbler, engineer, pilot, driver, chef, dentist, police, writer, dancer, postman, soldier, astronaut, athlete, painter, carpenter, singer, and mechanic.

Level 1 - Refer to Pg.no 500 in Vol 2

Level 2 - Refer to Pg.no 511 in Vol 2
I) **Food items** *(Refer Pg.no 518 in Vol 2)*

**Fast food**
Noodles, pizza, popcorn, burger, sandwich, biscuit, and cake.

**Home Food**
Fruits, milk, tea, coffee, idly, dosa, vada, rice and curries, chapatti and sabzi, puri, khichdi, upma, paratha, biriyani, salad, and buttermilk.

**Sweets**
Ice cream, payasam, gulab jamun, mysore pak, jalebi, ladoo.

*Level 1 - Refer to Pg.no 551 in Vol 2*
*Level 2 - Refer to Pg.no 557 in Vol 2*

m) **Names of items in the house** *(Refer to Pg.no 569 in Vol 2)*

**Items in the kitchen**
Fridge, stove, knife, vegetables, utensils, mixie, grinder, spoon, plate, pressure cooker, oven, bottle, cup, and saucer.

**Items in the living room**
Fan, light, table, chair, sofa, TV, computer, AC.

**Rooms of the house**
Kitchen, bedroom, dining hall, balcony, living room, garden, bathroom, terrace, guest room.

*Level 1 - Refer to Pg.no 602 in Vol 2*
*Level 2 - Refer to Pg.no 615 in Vol 2*

n) **Gender** *(Refer Pg.no 627 in Vol 2)*
Male, female.

*Level 1 - Refer to Pg.no 630 in Vol 2*
*Level 2 - Refer to Pg.no 633 in Vol 2*

o) **Time of the day** *(Refer Pg.no 636 in Vol 2)*
Morning, afternoon, evening, and night.

*Level 1 - Refer to Pg.no 641 in Vol 2*
*Level 2 - Refer to Pg.no 645 in Vol 2*

p) **Clothes** *(Refer Pg.no 649 in Vol 2)*
Frock, pants, shirt, skirt-top, jeans, churidar, T-shirt, saree, coat, socks, hat, trousers, gloves.
q) **Emotions** *(Refer Pg.no 679 in Vol 2)*
   Happy, sad, elated, surprised, angry, fearful, enjoyment, disgusted, anxious, tired, hungry.

r) **Festivals** *(Refer Pg.no 702 in Vol 2)*
   Diwali, Holi, Dussehra, Christmas, Janmashtami, Onam, Pongal, Eid, Ganesh Chaturthi, Maha Shivaratri.

s) **National symbols of India** *(Refer Pg.no 730 in Vol 2)*
   - National flower: Lotus
   - National bird: Peacock
   - National tree: Banyan
   - National animal: Tiger
   - National game: Hockey
   - National river: Ganges
   - National fruit: Mango

  Level 1 - Refer to Pg.no 689 in Vol 2
  Level 2 - Refer to Pg.no 697 in Vol 2

  Level 1 - Refer to Pg.no 713 in Vol 2
  Level 2 - Refer to Pg.no 723 in Vol 2

  Level 1 - Refer to Pg.no 738 in Vol 2
  Level 2 - Refer to Pg.no 744 in Vol 2

  Level 1 - Refer to Pg.no 751 in Vol 2
  Level 2 - Refer to Pg.no 752 in Vol 2

  **Habits** *(Refer Pg.no 751 in Vol 2)*
  **Good habits**
  1. Waking up early morning
  2. Brushing twice a day
  3. Washing hands frequently
  4. Praying daily
  5. Eating healthy food
  6. Doing homework on time
  7. Helping elders
  8. Caring for siblings
  9. Sharing with friends
  10. Exercising daily
**Bad habits**
1. Thumb sucking
2. Nail-biting
3. Nose picking
4. Stealing
5. Not obeying elders
6. Fighting with siblings
7. Grinding teeth
8. Eating junk food
9. Too much phone usage
10. Skipping breakfast

**Level 1** - Refer to Pg.no 774 in Vol 2

**Level 2** - Refer to Pg.no 787 in Vol 2

**u) Family members** *(Refer Pg.no 802 in Vol 2)*
Mother, father, baby, grandfather, and grandmother.

**Level 1** - Refer to Pg.no 810 in Vol 2

**Level 2** - Refer to Pg.no 816 in Vol 2

**v) Identification of simple words differing in frequency characteristics** *(Refer Pg.no 821 in Vol 2)*

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Boat</td>
<td>16</td>
<td>Banana</td>
<td>31</td>
</tr>
<tr>
<td>2</td>
<td>Cat</td>
<td>17</td>
<td>Dance</td>
<td>32</td>
</tr>
<tr>
<td>3</td>
<td>Dog</td>
<td>18</td>
<td>Home</td>
<td>33</td>
</tr>
<tr>
<td>4</td>
<td>Mango</td>
<td>19</td>
<td>Fan</td>
<td>34</td>
</tr>
<tr>
<td>5</td>
<td>Moon</td>
<td>20</td>
<td>Phone</td>
<td>35</td>
</tr>
<tr>
<td>6</td>
<td>Bat</td>
<td>21</td>
<td>Book</td>
<td>36</td>
</tr>
<tr>
<td>7</td>
<td>Fish</td>
<td>22</td>
<td>Boat</td>
<td>37</td>
</tr>
<tr>
<td>8</td>
<td>Sun</td>
<td>23</td>
<td>Goat</td>
<td>38</td>
</tr>
<tr>
<td>9</td>
<td>Deer</td>
<td>24</td>
<td>Sheep</td>
<td>39</td>
</tr>
<tr>
<td>10</td>
<td>Door</td>
<td>25</td>
<td>Fire</td>
<td>40</td>
</tr>
<tr>
<td>11</td>
<td>Chair</td>
<td>26</td>
<td>Pot</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>12</td>
<td>Shoe</td>
<td>27</td>
<td>Van</td>
<td>42</td>
</tr>
<tr>
<td>13</td>
<td>Son</td>
<td>28</td>
<td>Monkey</td>
<td>43</td>
</tr>
<tr>
<td>14</td>
<td>Cot</td>
<td>29</td>
<td>Leg</td>
<td>44</td>
</tr>
<tr>
<td>15</td>
<td>Bee</td>
<td>30</td>
<td>Doll</td>
<td>45</td>
</tr>
</tbody>
</table>

Level 1 - Refer to Pg.no 873 in Vol 2

Level 2 - Refer to Pg.no 900 in Vol 2

w) **Identification of minimal pairs which differ in the frequency characteristics of vowels**
   *(Refer Pg.no 925 in Vol 2)*

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Meal-mall</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>Sea-sow</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>Chalk-cheek</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Pen-pin</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>Fat-feet</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>Hot-hat</td>
<td>13</td>
</tr>
<tr>
<td>7</td>
<td>Net-note</td>
<td>14</td>
</tr>
</tbody>
</table>

Level 1 - Refer to Pg.no 925 in Vol 2

x) **Identification of pair of words that differ in the frequency characteristics of consonants** *(Refer Pg.no 940 in Vol 2)*

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Boy-toy</td>
<td>7</td>
<td>Fan-man</td>
<td>13</td>
<td>Kite-bite</td>
</tr>
<tr>
<td>2</td>
<td>Bat-fat</td>
<td>8</td>
<td>Nose-sauce</td>
<td>14</td>
<td>Jeep-sleep</td>
</tr>
<tr>
<td>3</td>
<td>Shall-mall</td>
<td>9</td>
<td>Note-dot</td>
<td>15</td>
<td>Thread-bread</td>
</tr>
<tr>
<td>4</td>
<td>Fan-man</td>
<td>10</td>
<td>Pot-hot</td>
<td>16</td>
<td>Book-cook</td>
</tr>
<tr>
<td>5</td>
<td>Nail-tail</td>
<td>11</td>
<td>Seed-weed</td>
<td>17</td>
<td>Bed-red</td>
</tr>
<tr>
<td>6</td>
<td>Boat-dot</td>
<td>12</td>
<td>Moon-spoon</td>
<td>18</td>
<td>Soap-mop</td>
</tr>
</tbody>
</table>

Level 1 - Refer to Pg.no 940 in Vol 2
Chapter 5
AUDITORY COMPREHENSION
(Understanding speech)

5.1 Definition

It is listening and understanding spoken utterances such as sentences and conversations. Here the child can grasp the meaning of the spoken message. The child has to hear the phrase or sentence and understand and learn the meaning of the spoken message. The child has to perform the activity, answer the question, and choose the appropriate option for the questions asked. The child has to listen to stories, understand them and then answer the questions related to the story to know how well the child has understood the story.

5.2 Task

The parents must expose the App's words or phrases to the child. The child must listen and understand the audio message and perform the activity or answer the questions. Auditory comprehension or Understanding speech - Category 5 in the App (Refer to Pg.no 956 in Vol 2) has four categories, with three levels in each category. It includes Commands, Yes/No questions, odd one out and Stories.

a) Commands

Orders or commands are given for a child to follow. It has three levels. One-step commands in level 1, such as 'Sit.' Two-step commands in level 2, such as 'Close the door.' Three-step commands in level 3, such as 'Take the pen and write.'

I. Instructions for Preview

Here the child is introduced to the concept of commands in auditory comprehension. A few examples show the child how to perform the task and help the child learn the concept.

- The word 'Bend' audio will be played and displayed in a picture in level 1.
- The phrase audio 'Catch the ball' is played and displayed in a picture in level 2.
- The phrase audio 'Point to your nose and mouth' is played and displayed in a picture in level 3.
II. Instructions for Training

Here the child is given practice with the learned concept and gets feedback for correct and incorrect responses. In the training session, there are levels according to the complexity of the task.

- The word 'Bend' audio will be played and displayed in a picture in level 1. The child must follow the command 'Bend'—two choices, 'Completed' and 'Not completed. If the child completes this task correctly, a thumbs-up symbol is for the correct response, and a thumbs-down symbol is for the incorrect or incomplete answer.

- The audio for the phrase 'Catch the ball' is played and displayed in a picture in level 2. The child has to follow the command 'Catch the ball'—two choices given as 'Completed' and 'Not completed. If the child completes this task correctly, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect or incomplete response.

- The phrase 'Point to your nose and mouth' audio is played and displayed in a picture in level 3. The child must follow the command, 'Point to your nose and mouth—two choices given as 'Completed' and 'Not completed. If the child completes this task correctly, a thumbs-up symbol is for the correct response, and a thumbs-down symbol is for the incorrect or incomplete answer.

III. Instructions for Testing

They undergo testing with a scoring system to evaluate whether the child understands the concept of commands in auditory comprehension. A score of 1 is for the correct response, and a score of 0 is for the incorrect response.

- The word 'Bend' audio is played in level 1. The child has to follow the command 'Bend'—two choices given as 'Completed' and 'Not completed. If the child completes this task correctly, they get a score of 1 for the correct response and 0 for the incorrect or incomplete response.

- The phrase 'Catch the ball' audio is played in level 2. The child must follow the command 'Catch the ball'—two choices are 'Completed' and 'Not completed. If the child completes this task correctly, a score of 1 is for the correct response, and a score of 0 is for the incorrect or incomplete response.

- The audio for the phrase 'Point to your nose and mouth' is played in level 3. The child must follow the command, 'Point to your nose and mouth—two choices given as 'Completed' and 'Not completed. If the child completes this task correctly, a score of 1 is for the correct response, and a score of 0 is for the incorrect or incomplete response.
Commands – Stimulus material

Level 1 (Refer Pg.no 957 in Vol 2)
One step command
1. Stand
2. Sit
3. Jump
4. Dance
5. Sing
6. Write
7. Come
8. Drink
9. Eat
10. Sleep
11. Blink
12. Clap
13. Bend
14. Laugh
15. Play
16. Give
17. Sweep
18. Clean
19. Walk
20. Hide
21. Speak
22. Lick
23. Blow
24. Comb
25. Run

Level 2 (Refer Pg.no 983 in Vol 2)
Two-step commands
1. Take the pen [other objects can be included]
2. Give the toy [other objects can be included]
3. Bring water [other objects can be included]
4. Close your eyes
5. Show your mouth
6. Point to the cow [other animals can be included]
7. Wave at me
8. Walk to the door
9. Cross your fingers
10. Count to 10
11. Color the picture
12. Draw a house
13. Search for a toy
14. Clean the table
15. Open the door
16. Close the door
17. Cover the pan
18. Comb your hair
19. Sweep the floor
20. Cut the fruit
21. Hide the toy
22. Move the block
23. Write on the book
24. Read the story
25. Switch on the fan/light/TV
26. Switch off the fan/light/TV
27. Throw the ball
28. Catch the ball
29. Wash your hands
30. Puff the cheeks
31. Fold the paper
32. Eat the food
33. Wear your dress
34. Pack your bag

**Level 3 (Refer Pg.no 1006 in Vol 2)**

**Three-step commands**
1. Crush the paper and throw
2. Wash your hands and wipe
3. Wear your dress and comb
4. Take the pen and write
5. Close the door and sit
6. Open the door and sit
7. Sit in the chair and fold your hands
8. Draw a house and color it
9. Drink the water from the bottle.
10. Cut the fruit and eat
11. Point to your mouth and nose
12. Clap your hands and stand
13. Close your eyes and talk
14. Take the pen and write.
15. Open the book and read.

b) **Yes/no questions**

Here the question is framed so that the child should understand it, think about it, and respond as 'yes' or 'no.' For example, the parent asks the child, 'Is ice cream cold?' The child must listen to the question and answer 'yes.'

I. **Instructions for Preview**

Here the child is introduced to the concept of yes/no questions in auditory comprehension. A few examples show the child how to perform the task and help the child learn the concept.

- The following question, 'Is breakfast coming before lunch?' is played, and the answer is displayed as 'yes.'

II. **Instructions for Training**

Here the child is given practice with the learned concept and gets feedback for correct and incorrect responses.

- The audio for the question 'Is breakfast coming before lunch?' is played. The child has to answer the question, and two choices are 'Yes' and 'No.' Suppose the child correctly responds 'Yes' to this question. In that case, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect response.

III. **Instructions for Testing**

They undergo testing with a scoring system to evaluate whether the child understands the concept of yes/no questions in auditory comprehension. A score of 1 is for the correct response, and a score of 0 is for the incorrect response.

- The audio for the question 'Is breakfast coming before lunch?' is played. The child must answer the question, and two choices, 'Yes' and 'No', are given. If the child correctly responds 'Yes' to this question, then a score of 1 is given, and a score of 0 is for the incorrect response.
Yes/no questions – Stimulus material

1. Is breakfast coming before lunch? Yes
2. Is a cat smaller than a rat? No
3. Are chocolates bitter and sour? No
4. Is the elephant larger than the rat? Yes
5. Is ice cream cold? Yes
6. Is a kangaroo taller than a giraffe? No
7. Is mango sweet? Yes
8. Is Lemon sweeter than apple? No
9. Is your name ------- (wrong name)? No
10. Is your name ------- (the right one)? Yes
11. Is this a shop? No
12. Is this a hospital? Yes
13. Is a mobile phone used for speaking? Yes
14. Can we ride a car in the water? No
15. Is a train longer than an auto? Yes
16. Will a snake walk on its foot? No
17. Is Umbrella used during the rainy season? Yes
18. Is summer cold? No
19. Is a car faster than a cycle? Yes
20. Is tomato blue in color? No
21. Is the ball round in shape? Yes
22. Does a teacher work in a school? Yes
23. Does the pilot drive a train? No
24. Can we eat rice? Yes
25. Will a balloon float in the air? Yes
26. Will the kite fly in the sky? Yes
27. Can we ride on a cat? No
28. Is ladoo sweet? Yes
29. Are the crows white in color? No
30. Is food prepared in the kitchen? Yes
31. Will the water quench our thirst? Yes
32. Does the cow give us milk? Yes
33. Should we brush our teeth daily? Yes
34. Do we have to respect our elders? Yes
35. Do we have to steal from our friends? No
36. Should we fight with our siblings? No
37. Should we help our parents? Yes
38. Is eating chocolates daily good for us? No
39. Should we eat Junk food? No
40. Can we pray daily? Yes

c) **Odd one out** *(Refer Pg.no 1018 in Vol 2)*

It is the ability to recognize a word that is different in category from other words. The parent has to present four words to the child orally. The child has to listen and recognize the word that is different from the other three words. For example, the parent says, 'Bicycle, Scooter, Auto, and Banana.' Here 'Bicycle, Scooter, Auto' belongs to the category of vehicles, whereas 'Banana' is different as it belongs to the category of fruits. The child must listen to the words and find the word that is different (odd). The levels increase in complexity from levels 1 to 3. Gross differences between the categories are in level 1, such as 'Bunch, desk, table, lotus.' Moderate differences between categories are in level 2, such as 'Milk, tea, coffee, noodles, and fine or minute differences between categories are in level 3, such as 'Eyes, legs, ears, and nose.'

I. **Instructions for Preview**

Here the child is introduced to the concept of the odd one out in auditory comprehension. A few examples show the child how to perform the task and help the child learn the concept.

- The audio for the words' Bicycle, Scooter, Auto, Banana' is played and displayed in a picture in level 1. The odd one, 'Banana,' is highlighted.
- The audio for the words 'Apple, Watermelon, Grapes, Tomato' is played and displayed in a picture in level 2. The odd one, 'Tomato,' is highlighted.
- The words' Car, Bicycle, Auto Aeroplane' audio is played and displayed in a picture in level 3. The odd one, 'Aeroplane,' is highlighted.

II. **Instructions for Training**

Here the child is given practice with the learned concept and gets feedback for correct and incorrect responses. In the training session, there are levels according to the complexity of the task.

- The audio for the words' Bicycle, Scooter, Auto, Banana' is played and displayed in a picture in level 1. The child must find the odd one. Suppose the child correctly finds the odd one as 'Banana.' In that case, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect response.
- The audio for the words 'Apple, Watermelon, Grapes, Tomato' is played and displayed in a picture in level 2. The child has to find the odd one. Suppose the child correctly finds the odd one as 'Tomato.' In that case, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect response.
• The audio for the words' Car, Bicycle, Auto Aeroplane' is played and displayed in a picture in level 3. The child must find the odd one. Suppose the child correctly finds the odd one as 'Aeroplane.' In that case, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect response.

III. Instructions for Testing

To evaluate whether the child understands the concept of the odd one out in auditory comprehension, they undergo testing with a scoring system. A score of 1 is for the correct response, and a score of 0 is for the incorrect response.

• The audio for the words' Bicycle, Scooter, Auto, Banana' is played in level 1. The child must find the odd one. If the child correctly finds the odd one as 'Banana,' then a score of 1 is given, and a score of 0 is for the incorrect response.

• The audio for the words 'Apple, Watermelon, Grapes, Tomato' is played in level 2. The child has to find the odd one. If the child correctly finds the odd one as 'Tomato,' then a score of 1 is given, and a score of 0 is for the incorrect response.

• The audio for the words' Car, Bicycle, Auto Aeroplane' is played in level 3. The child must find the odd one. If the child correctly finds the odd one as 'Aeroplane,' then a score of 1 is given, and a score of 0 is for the incorrect response.

Odd one out– Stimulus material

Level 1 (Refer Pg.no 1018 in Vol 2)
1. Bicycle, scooter, auto, banana
2. Bunch, desk, table, lotus
3. Bus, aeroplane, hen, train
4. Carrot, beans, bottle, tomato
5. Crow, cuckoo, pigeon, chilly
6. Fan, TV, fridge, eraser
7. Ladoo, jalebi, speaker, Mysore Pak
8. Laptop, ball, computer, mobile
9. Leaf, root, tree, fan
10. Mango, apple, banana, car
11. Pencil, Rose, jasmine, hibiscus,
12. Rat, tongue, frog, snake
Level 2 *(Refer Pg.no 1032 in Vol 2)*

1. Apple, watermelon, grapes, **tomato**
2. Chair, **carpet**, sofa, table
3. Crow, **snake**, peacock, pigeon
4. Dosa, idly, chapati, **ladoo**
5. Floor, carpet, tiles, **window**
6. Frock, churidar, saree, **socks**
7. Grapes, pomegranate, **lotus**, orange
8. Jack, coconut, peepal, **rose**
9. **Juice**, biscuit, chips, popcorn
10. Milk, tea, coffee, **noodles**
11. Peacock, Lion, tiger, cat
12. Pineapple, guava, orange, **carrot**
13. Pizza, burger, **idly**, cold drink

Level 3 *(Refer Pg.no 1046 in Vol 2)*

1. Car, bicycle, auto, **Aeroplane**
2. Carrot, potato, **pumpkin**, beans
3. Cat, dog, **dolphin**, lion
4. Eyes, **leg**, ears, nose,
5. Kitchen, **garden**, bedroom, balcony
6. **lion**, cow, goat, dog,
7. Rice, **milk**, upma, puri,
8. Rose, jasmine, hibiscus, **lotus**
9. **Singer**, Doctor, teacher, nurse
10. Snake, lizard, crocodile, **monkey**
11. t-shirt, Frock, saree, churidar,
12. **watermelon**, Cherry, grapes, pomegranate

d) **Stories** *(Refer Pg.no 1058 in Vol 2)*

The child has to listen to and understand the stories. Questions from the story will be asked at the end of the story. Closed-ended and open-ended questions will be asked. Closed-ended questions require answers by selecting from a limited number of options, such as multiple-choice questions. For example, in the App, the child is given three numbered boxes of 1, 2, and 3 as choices. The child has to answer with the options provided. Open-ended questions cannot be answered with a "yes" or "no" response but require a response in sentences or paragraphs. Stories include three levels. The levels increase in complexity from levels 1 to 3. Stories like 'Thirsty Crow' and 'Fox and Crow' with closed-ended questions are included in
levels 1 and 2, respectively. Stories like 'Monkey and crocodile' with closed and open-ended questions are in level 3.

I. Instructions for Preview

Here the child is introduced to the concept of stories in auditory comprehension. A few examples show the child how to perform the task and help the child learn the concept.

- The story's audio is played, and pictures are displayed for levels 1, 2, and 3.

II. Instructions for Training

Here the child is given practice with the learned concept and gets feedback for correct and incorrect responses. In the training session, there are levels according to the complexity of the task.

- Questions from the story are asked. Stories like 'Thirsty Crow' and 'Fox and Crow' with closed-ended questions are included in levels 1 and 2, respectively. Stories like 'Monkey and crocodile' with closed and open-ended questions are in level 3. The child has to listen to the questions and answer the closed and open-ended questions. If the Child answers correctly, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect response.

III. Instructions for Testing

To evaluate whether the child understands the concept of stories in auditory comprehension, they undergo testing with a scoring system. A score of 1 is for the correct response, and a score of 0 is for the incorrect answer.

- Questions from the story are asked. Stories like 'Thirsty Crow' and 'Fox and Crow' with closed-ended questions are included in levels 1 and 2, respectively. Stories like 'Monkey and crocodile' with closed and open-ended questions are in level 3. The child must listen to and answer the closed and open-ended questions. If the child answers correctly, then a score of 1 is given, and a score of 0 is for the incorrect response.
Stories – Stimulus material

Level 1 *(Refer Pg.no 1058 in Vol 2)*

1) The Thirsty Crow

It was a hot day. A crow was very thirsty. His throat was dry. He flew from place to place in search of water. But there was not even a drop of water anywhere.

At last, he saw a jug of water near a well. He went near the jug and looked into it. There was a little water at the bottom of the jug. The crow could see the water, but he could not reach it.

He saw some stones near the well. Suddenly he got an idea.

He picked up the stones from the ground and dropped them one by one into the jug. The water level came up.

Soon the crow reached the water easily. He drank the water happily and flew away.

*MORAL OF THE STORY: WHERE THERE IS A WILL, THERE IS A WAY*

Questions

1. Who was very thirsty?
   I. crow
   II. duck
   III. ant

2. What was the crow looking for?
   I. butter
   II. flower
   III. water

3. Where did the crow find the water?
   I. River
   II. pot
   III. jug

4. Why did the crow become happy?
   I. On seeing the water
   II. On seeing the butter
   III. On seeing the food

5. How did the crow drink the water?
   I. By dropping stones inside the jug
   II. By breaking the jug
   III. By getting inside the jug
2) **The Hare and the Tortoise**

One day a Hare was boasting about how fast he could run. He was laughing at the tortoise for being so slow. Much to the Hare’s surprise, the tortoise challenged him to a race.

The Hare thought this was a good joke and accepted the challenge. As the race began, the Hare raced way ahead of the tortoise, just as everyone thought.

The Hare reached halfway and could not see the tortoise anywhere. He was tired and decided to stop and take a short nap.

Even if the tortoise passed him, he would be able to win the race. All this time, the tortoise kept walking step by step. He never quit, no matter how tired he got.

He just kept going. However, the Hare slept longer than he had thought and woke up. He could not see the tortoise anywhere!

He went to the finish line at full speed but found the tortoise there waiting for him.

*MORAL OF THE STORY: NEVER UNDERSIZE ANYONE*

**Questions**

1. **Who was proud?**
   - I. **Hare**
   - II. Tortoise
   - III. Monkey

2. **Who won the race?**
   - I. Hare
   - II. **Tortoise**
   - III. Crow

3. **What did the Hare do after running halfway?**
   - I. **Took rest**
   - II. Ate food
   - III. Drank water

4. **Who was a fast runner?**
   - I. **Hare**
   - II. Tortoise
   - III. Cat
3) The Cap seller and the Monkeys

A cap seller was very tired. He left his basket of caps and slept under a shady tree.

The monkeys living on the tree came down, took all the caps, and wore them.

The cap seller woke up. He was shocked because his caps were missing. He searched and found the monkeys wearing the caps.

He tried many tricks but failed. Finally, he threw his cap down.

What a surprise! The monkeys also threw down the caps.

The cap seller picked up the caps and went away happily.

MORAL OF THE STORY: THE PRESENCE OF MIND CAN FIND A WAY OUT OF MANY DIFFICULTIES

Questions

1. Where did the cap seller leave his basket of caps?
   I. Under a tree
   II. Under a plant
   III. Inside a house

2. Who wore the caps?
   I. Elephants
   II. Monkeys
   III. Cats

3. What are Monkeys?
   I. Fool
   II. Smart
   III. Mimicker

4. Where were the Monkeys staying?
   I. Tree
   II. River
   III. Mountain
4) The Greedy Dog

There was a greedy dog. One day the dog was feeling very hungry. He saw some dogs fighting over a piece of bone. He chased away the dogs and took the bone.

The dog wanted to have the bone for himself. He started to cross a bridge across the river. As he crossed the bridge, he happened to look into the water. He saw another dog with a bone.

Not knowing that it was his image, he barked. The bone slipped from his mouth and fell into the river.

Now the dog felt sorry. His greed had made him lose his food.

**MORAL OF THE STORY: GREED LEADS TO GRIEF**

Questions

1. How was the dog feeling?
   I. Tired
   II. Hungry
   III. Happy

2. What did the dog find?
   I. Bone
   II. Egg
   III. Fish

3. What did the dog see inside the river?
   I. Cat
   II. Rat
   III. Himself

4. What was the Dog?
   I. Greedy
   II. Funny
   III. Playful
5) The Lion and the Bulls

Once there lived four bulls unitedly in a forest. One day a lion passed on the way and saw the bulls.

When the bulls saw the lion, they all fought and chased it.
After some days, the bulls quarreled with each other and began to graze in different places.
The lion came there and killed one among them.
The remaining three bulls realized their fault and decided to be united.
The next time the lion came to attack, they fought unitedly and chased it away.

MORAL OF THE STORY: UNITED THE STAND DIVIDED THE FALL

Questions

1. Where did the bulls live?
   I. Town
   II. City
   III. Forest

2. Who attacked cows?
   I. Lion
   II. Tiger
   III. Monkey

3. What did the bulls do when they saw the lion?
   I. Bulls fought and chased the lion.
   II. The bulls ran away from the lion.
   III. Bulls hid from the lion.

Level 2 (Refer Pg.no 1094 in Vol 2)

1) The Fox and the Grapes

One day a fox was very hungry. He went here and there in search of food.
At last, he came to a vineyard. He saw bunches of ripe grapes hanging high.
His mouth started watering. He stretched out to reach the grapes. But he found them rather too high.
So he jumped to reach them. Even then, he could not reach them.
He jumped again and again till he was completely tired. At last, he gave up and left the place.

He was heard saying, "The grapes are sour. Who wants sour grapes?".

MORAL OF THE STORY: ACCEPT DEFEAT SPORTINGLY

Questions

1. Who was very hungry?
   I. Fox
   II. Lion
   III. Crow

2. What was the fox searching for?
   I. Chocolate
   II. Food
   III. Water

3. What did the fox see in the vineyard?
   I. mangoes
   II. apples
   III. grapes

4. What did the fox do to get the grapes?
   I. Jumped
   II. Ran
   III. Walked

5. What did the fox say when he did not get the grapes?
   I. Grapes are tasty
   II. Grapes are sour
   III. Grapes are small

2) Goats across a bridge

Once two goats who were grazing on either side of a river wanted to cross the bridge at a time. But the bridge was too narrow to hold the goats.

Both the Goats were so adamant to cross at the same time. This led to a quarrel between them.

In the end, both fell into the river and got drowned. There were two other goats who wanted to cross the bridge. They were both understanding in nature.
One goat squatted on the bridge while the other crossed over this goat, and the squatted goat got up and walked across the bridge.

Thus, both the goats crossed the bridge easily.

**MORAL OF THE STORY: PRIDE LEADS TO FALL. PATIENCE PAYS**

Questions

1. Who wanted to cross the bridge?
   I. Goats
   II. Elephants
   III. Lions

2. What happened to the goats who were adamant?
   I. They crossed the bridge.
   II. They fell into the river.
   III. They fell on a boat

3. What did the other two goats do to cross the bridge?
   I. One goat moved to the side of the bridge to give way to the other goat
   II. One goat walked back to give way to the other goat
   III. One goat squatted, and the other goat crossed over

4. What is the moral of the story?
   I. Pride leads to Fall
   II. Patience pays
   III. All the above

3) The Fox and The Crow

One day a cake seller was selling cakes. A Crow snatched a cake from the cake seller.

Then it settled down on the branch of a tall tree to eat the cake. A fox saw the crow with the cake. It looked up at the crow and said, "Good morning, how are you?"

There was no reply. The fox said, “you look very bright and beautiful. If your voice is also sweet, you will be a Queen among all birds. Please let me hear your voice.”

The silly crow thought, “I am indeed a queen among Birds. I must prove it, then it opened its mouth to caw, and down fell the cake from its beak.

The clever fox picked it up and ran away.
At last, the silly crow lost its cake.

MORAL OF THE STORY: SELFISH PEOPLE SPEAK SWEET WORDS TO SERVE THEIR ENDS

Questions

1) Who saw the crow in a tree?
   I. Lion
   II. Fox
   III. Elephant

2) What was the crow having in his beak?
   I. Cake
   II. Fish
   III. Egg

3) How did the crow lose its cake?
   I. By giving it to fox
   II. By dropping it in the river
   III. By opening its mouth

4) What did the fox tell to flatter the crow?
   I. Crow is bright and beautiful.
   II. Has a sweet voice
   III. All the above

4) An Ant and the Dove

An ant fell into a pond one day.

A dove who was sitting on the branch of a tree near the pond picked up a leaf and threw it near the ant.

The ant climbed upon the leaf, reached the bank safely, and thanked the Dove.

A hunter saw the Dove on the tree and aimed at it.

The ant saw this and bit the Hunter’s foot. His aim was missed.

The Dove thanked the ant and flew away.

MORAL OF THE STORY: A FRIEND IN NEED IS A FRIEND INDEED
Questions

1) What happened to the ant?
   I. Fell into a pond
   II. Fell into a river
   III. Fish ate the ant

2) Who helped the ant?
   I. Cat
   II. Dove
   III. Elephant

3) Who helped the Dove?
   I. Cat
   II. Elephant
   III. Ant

4) How did the Dove save the ant?
   I. By throwing a leaf into the pond
   II. By throwing a stick into the pond
   III. By throwing a paper into the pond

5) How did the ant save the Dove?
   I. By talking to the Dove
   II. By biting the Hunter’s foot
   III. By throwing a leaf

5) Playful Mouse

As usual, a mouse was playing with his friends.
On seeing a cat, all the friends started running in all directions.
A poor mouse got stuck in a bottle lying nearby.
The Cat tried to catch the mouse. As he failed, the Cat went in search of a long stick.
In the meantime, the mouse escaped from the bottle with the help of a friend’s tail.
The mouse ran away with his friends, much to the disappointment of the Cat.

MORAL OF THE STORY: A FRIEND IN NEED IS A FRIEND INDEED
Questions

1) Why did the mice run in all directions?
   I. On seeing the Cat
   II. On seeing the Tiger
   III. On seeing the Lion

2) Where did the mouse get stuck?
   I. Net
   II. Bottle
   III. Box

3) What did the Cat go in search of?
   I. Water
   II. Cheese
   III. Long stick

4) How did the mouse escape from the bottle?
   I. With the help of his mice friend’s tail
   II. With the help of the Cat’s tail
   III. With the help of a stick

Level 3 (Refer Pg.no 1130 in Vol 2)

1) The Angel and The Woodcutter

   Once a woodcutter went into a forest to cut a tree on the bank of a pond.

   Suddenly his axe slipped and fell into the pond.

   He prayed, "oh, mother! please help me." An Angel appeared. The Woodcutter pleaded, "Mother! Please get my axe."

   The Angel brought a golden axe and gave it. The Woodcutter said, "This is very beautiful. But this is not my axe."

   The Angel disappeared and came back with the silver axe. Again he said, “This is also not my axe.”

   This time the Angel appeared with his iron axe. The Woodcutter happily said, “Thank you, Mother. This is my axe.” The Angel now said, “You are a very good man. You speak only the truth. I give you all the three axes.”

   **MORAL OF THE STORY: ALWAYS SPEAK THE TRUTH**
Closed-ended questions

1. Who went to the forest to cut a tree?
   - I. Woodcutter
   - II. Carpenter
   - III. Farmer

2. Where did the axe Fall?
   - I. River
   - II. Pond
   - III. Well

3. Who appeared before the Woodcutter?
   - I. God
   - II. Saint
   - III. Angel

4. Which axe did the Woodcutter accept?
   - I. Iron axe
   - II. Golden axe
   - III. Silver axe

5. How many axes did the Angel give the Woodcutter?
   - I. Two axes
   - II. All three axes
   - III. One axe

Open-ended questions

I. Did the Woodcutter do the right thing?
II. If you were in the Woodcutter's place, what would you do?
III. What is the moral of the story?

2) The Monkey and The Crocodile

A monkey and a crocodile were bosom friends. The monkey used to give mangoes to the crocodile. The crocodile took some to his wife also.

One day the crocodile’s wife expressed her wish to taste the delicious heart of the monkey.

So the crocodile invited the monkey to his home for a grand dinner. The monkey sat on the back of the crocodile.
When they reached the middle of the river, the crocodile disclosed the secret plan of his wife. The monkey was shocked.

The monkey managed to control his fear and said casually, "oh! Dear friend! I have left my heart on the tree. Why did you not tell me the truth earlier?"

The foolish crocodile believed the fantastic lie and took the monkey back. As soon as the monkey reached the shore, it quickly climbed onto the tree and gave goodbye to the crocodile.

*MORAL OF THE STORY: THE PRESENCE OF MIND CAN SAVE YOU FROM DANGER*

**Closed-ended questions**

1) What did the monkey give to the crocodile?
   - I. Mango
   - II. Banana
   - III. Apple

2) Monkey gave mangoes to whom?
   - I. Fish
   - II. Crocodile
   - III. Cheetah

3) What did the greedy wife tell the crocodile?
   - I. She wants to eat the heart of the monkey
   - II. She wants to eat mangoes
   - III. She wants to eat apples

**Open-ended questions**

1. What would you do to escape from the crocodile if you were in a monkey's place?
2. By hearing the words of his wife, did the crocodile do the right thing? And why?
3. If somebody helps you. What are you supposed to do in return?
4. What is the moral of the story?
Chapter 6
AUDITORY MEMORY AND SEQUENCING
*(Remembering words in order)*

6.1 Definition

Auditory memory is the ability to remember spoken utterances, and auditory sequencing is the ability to understand and recall the order of sounds, words, and sentences. Auditory memory involves taking in the information presented, processing it, storing it in one's mind, and then recalling what one has heard. If a child struggles with auditory memory, they can find it challenging to follow instructions and pay attention. Auditory memory also plays a crucial role in literacy as it is one area of auditory processing that directly impacts reading, spelling, writing, and math skills. The child can be given a set of tasks to be completed. If the child meets all the tasks but not in order, then there is a possible issue in auditory sequencing. While the child performs the tasks in order but cannot recall all of them, auditory memory is a potential issue. The words or objects the child understands daily and registered in the brain. Repeated exposure leads to the storage of particular words. They then associate it with a specific meaning and store it in their memory.

6.2 Task

The parents have to expose the child to the sentences in the App. The child has to listen, memorize the audio message, and recall and identify the message. Auditory memory and sequencing or Remembering words in order - Category 6 in the App *(Refer to Pg.no 1145 in Vol 2)* has three categories. It includes memorizing keywords in the sentence, auditory memory: item selection, and memory of events.

a) **Memorizing keywords in the sentence** *(Refer to Pg.no 1146 in Vol 2)*

The child must listen to and remember the keywords in the sentence. It has three levels. The levels increase in complexity from levels 1 to 3.

I. **Instructions for Preview**

Here the child is introduced to the concept of memorizing keywords in a sentence in auditory memory and sequencing. A few examples show the child how to perform the task and help the child learn the concept.

- The audio for the sentence 'Balu got a ball and bat' is played, and the two keywords 'ball and bat' are displayed in a picture in level 1.
- The sentence 'He got mangoes, guava, and papaya from his garden' audio is played, and the three keywords' mangoes, guava and papaya' are displayed in a picture in level 2.
- The audio 'Arjun had toys of car, aeroplane, bicycle, and train' is played. The four keywords' car, aeroplane, bicycle, and train' are displayed in a picture in level 3.

II. Instructions for Training

Here the child is given practice with the learned concept and gets feedback for correct and incorrect responses. In the training session, there are levels according to the number of keywords provided.
- The audio for the sentence 'Balu got a ball and bat' is played, and the two keywords' ball and bat' are displayed in a picture in level 1. The child must listen, memorize, and repeat the keywords' ball and bat'—two choices are 'Completed' and 'Not completed. If the child completes this task correctly, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect or incomplete response.
- The audio for the sentence 'He got mangoes, guava and papaya from his garden' is played, and the three keywords' mangoes, guava and papaya' are displayed in a picture in level 2. The child has to listen and memorize and repeat the keywords' mangoes, guava, and papaya'—two choices are 'Completed' and 'Not completed. If the child completes this task correctly, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect or incomplete response.
- The audio for the sentence 'Arjun had toys of car, aeroplane, bicycle, and train' is played. The four keywords' car, aeroplane, bicycle, and train' are displayed in a picture in level 3. The child must listen, memorize, and repeat the keywords' car, aeroplane, bicycle, and train'—two choices are 'Completed' and 'Not completed. If the child completes this task correctly, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect or incomplete response.

III. Instructions for Testing

To evaluate whether the child understands the concept of memorizing keywords in a sentence in auditory memory and sequencing, they undergo testing with a scoring system. A score of 1 is for the correct response, and a score of 0 is for the incorrect answer.
- The audio for the sentence 'Balu got a ball and bat' is played in level 1. The child must listen, memorize, and repeat the keywords' ball and bat'—two choices are 'Completed' and 'Not completed. Suppose the child completes this task correctly by repeating the two keywords. In that case, a score of 1 is given, and a score of 0 is for the incorrect or incomplete response.
• The audio for the sentence 'He got mangoes, guava and papaya from his garden' is played in level 2. The child must listen, memorize, and repeat the keywords' mangoes, guava, and papaya'—two choices given as 'Completed' and 'Not completed. Suppose the child completes this task correctly by repeating the three keywords. In that case, a score of 1 is given, and a score of 0 is for the incorrect or incomplete response.

• The audio for the sentence 'Arjun had toys of car, aeroplane, bicycle, and train' is played in level 3. The child must listen and memorize and repeat the keywords' car, aeroplane, bicycle, and train'—two choices are 'Completed' and 'Not completed. Suppose the child completes this task correctly by repeating the four keywords. In that case, a score of 1 is given, and a score of 0 is for the incorrect or incomplete response.

**Memorizing keywords in a sentence— Stimulus material**

**Level 1** - auditory memory of two keywords *(Refer to Pg.no 1146 in Vol 2)*

1. I ate an **apple** and **banana**
2. Mama brought a **car** and **train** from the market
3. Ram saw a **cat** and **dog** in the street
4. Radhika plucked a **mango** and **guava** from the tree
5. Lalita shared her **pen** and **pencil** with her friend
6. Vishaka touched her **eyes** and **ears**.
7. Balu got a **ball** and **bat**.
8. They had **milk** and a **banana**.
9. Priya gave the **book** and **bag** to Maya
10. She ate **pineapple** and **grapes**

**Level 2** - auditory memory of three keywords *(Refer to Pg.no 1157 in Vol 2)*

1. They went to the market and purchased **carrots**, **tomatoes**, and **potatoes**.
2. On the road, Balram saw a **car**, **train**, and **bus**.
3. She had in her bag a **bottle**, **book**, and **pen**.
4. At the zoo, they saw a **lion**, **Tiger**, and **elephant**.
5. Show me your **eyes**, **ears**, and **nose**.
7. Suguna collected **chili**, **ginger**, and **cabbage** from the fridge.
8. He got **mangoes**, **guava** and **papaya** from his garden.
9. Rahul coloured the picture with **yellow**, **green**, and **red** colours.
10. Lilly planted an **apple tree**, a **jack tree**, and a **guava tree**.
Level 3 - auditory memory of four keywords (Refer to Pg.no 1167 in Vol 2)

1. Shalini was presented with a balloon, chocolate, a doll, and an ice cream
2. Arjun had toys of car, aeroplane, bicycle, and train
3. Sita ate fruit salad with mango, grapes, pomegranate, and cherry.
5. Latha’s mother bought carrots, potatoes, tomatoes, and cauliflower from the market.
6. A pen, pencil, sharpener, and box were on the table.
7. In his notebook, he drew a circle, rectangle, square, and oval.
8. Children saw a jack tree, mango tree, papaya tree, and guava tree.
9. Lilly pointed to her nose, eyes, ears, and tongue correctly.
10. The mother took out a spoon, plate, glass, and milk from the kitchen.

b) Auditory memory: item selection (Refer Pg.no 1178 in Vol 2)

The parents have to expose the child to the words in the App. The child has to listen, memorize and select the words among the other options given. Once your child can choose one word in the item selection, move on to the auditory memory of two words. Gradually increase the number in the options set as your child's auditory memory develops.

a) Noun + Noun (Refer Pg.no 1178 in Vol 2)

The child has to listen to the phrase or sentence, memorize and find the nouns in the phrase or sentence.

I. Instructions for Preview

Here the child is introduced to the concept of item selection of nouns in auditory memory and sequencing. A few examples show the child how to perform the task and help the child learn the concept.

- The nouns' Auto and Bicycle' audio is played and displayed in a picture. The first noun is 'Auto,' and the second is 'Bicycle.'

II. Instructions for Training

Here the child is given practice with the learned concept and gets feedback for correct and incorrect responses.
• The audio for the nouns' Auto and Bicycle' is played and displayed in a picture with other pictures. The child must listen, memorize, and find the nouns' Auto and bicycle' played among the other images. Suppose the child completes this task correctly by finding all the nouns. In that case, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect or incomplete response.

III. Instructions for Testing

They undergo testing with a scoring system to evaluate whether the child understands the concept of item selection of nouns in auditory memory and sequencing. A score of 1 is for the correct response, and a score of 0 is for the incorrect answer.

• The audio for the nouns' Auto and Bicycle' is played and displayed in a picture with other pictures. The child must listen, memorize, and find the nouns' Auto and bicycle' played among the other images. If the child completes this task correctly by finding all nouns, then a score of 1 is given, and a score of 0 is for the incorrect or incomplete response.

Find the noun + noun—Stimulus material (Refer to Pg.no 1196 in Vol 2)

1. Car and bus
2. Cat and dog
3. Tiger and Lion
4. Mango and orange
5. Carrot and tomato
6. Auto and bicycle
7. Desk and bunch
8. T.V and fridge
9. Pencil and box
10. Teddy bear and rattle
11. Bag and bottle
12. Biscuit and noodles
13. Table and chair
14. Elephant and rat
15. Spoon and plate
16. Ball and doll
17. Eyes and nose
18. Fish and monkey
19. Rose and jasmine
20. Parrot and hen
b) **Adjective + Noun** *(Refer Pg.no 1207 in Vol 2)*

The child has to listen to the phrase or sentence, memorize and find the adjective, followed by the noun in the phrase or sentence.

I. **Instructions for Preview**

Here the child is introduced to the concept of item selection of 'adjective' and 'noun' in auditory memory and sequencing. A few examples show the child how to perform the task and help the child learn the concept.

- The noun 'Give me the small pencil' audio is played, and the adjective and noun 'small pencil' is displayed in a picture. The adjective is 'small,' and the noun is 'pencil.'

II. **Instructions for Training**

Here the child is given practice with the learned concept and gets feedback for correct and incorrect responses.

- The adjective and noun 'Give me the small pencil' audio is played and displayed in a picture with other pictures. The child must listen, memorize and find the adjective and noun 'small pencil' played among the other pictures. Suppose the child completes this task correctly by finding the adjective and nouns. In that case, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect response.

III. **Instructions for Testing**

They undergo testing with a scoring system to evaluate whether the child understands the concept of item selection of 'adjective' and 'noun' in auditory memory and sequencing. A score of 1 is for the correct response, and a score of 0 is for the incorrect answer.

- The adjective and noun 'Give me the small pencil' audio is played and displayed in a picture with other pictures. The child must listen, memorize and find the adjective and noun 'small pencil' played among the other pictures. If the child completes this task correctly by finding all the nouns, a score of 1 is given. A score of 0 is for the incorrect response.
Find the adjective + noun– Stimulus material (Refer to Pg.no 1228 in Vol 2)

1. I want the big spoon
2. Take the red apple
3. Give me the small pencil
4. Show me the empty bowl
5. Take the yellow ball
6. Where is the tall Giraffe?
7. Show me the beautiful rose
8. Where is the short girl?
9. Show me the huge mountain
10. Show me the yellow banana.

c) Noun + verb (Refer Pg.no 1239 in Vol 2)

The child has to listen to the phrase or sentence, memorize and find the noun and verb in the phrase or sentence.

I. Instructions for Preview

Here the child is introduced to the concept of item selection of noun+verb in auditory memory and sequencing. A few examples show the child how to perform the task and help the child learn the concept.

- The audio for the noun+verb 'Children are playing' is played and displayed in a picture. The noun is 'Children,' and the verb is 'playing,'

II. Instructions for Training

Here the child is given practice with the learned concept and gets feedback for correct and incorrect responses.

- The audio for the noun+verb 'Children are playing' is played and displayed in a picture with other pictures. The child must listen and memorize and find the noun+verb 'Children are playing' that is played among the other images. Suppose the child completes this task correctly by finding the noun+verb. In that case, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect or incomplete response.
III. Instructions for Testing

They undergo testing with a scoring system to evaluate whether the child understands the concept of item selection of noun+verb in auditory memory and sequencing. A score of 1 is for the correct response, and a score of 0 is for the incorrect answer.

- The audio for the noun+ verb 'Children are playing' is played and displayed in a picture with other pictures. The child must listen and memorize and find the noun+verb 'Children are playing' that is played among the other images. If the child completes this task correctly by finding all the nouns, then a score of 1 is given. A score of 0 is given for the incorrect or incomplete response.

Find the noun + verb– Stimulus material (Refer to Pg.no 1245 in Vol 2)

1. Children are playing
2. Dad is driving
3. She is dancing
4. Mother is cooking
5. The phone is ringing

d) Noun + preposition + noun (Refer Pg.no 1251 in Vol 2)

The child has to listen to the phrase or sentence, memorize and find the Noun, preposition, and Noun in the phrase or sentence.

I. Instructions for Preview

Here the child is introduced to the concept of item selection of noun + preposition+ noun in auditory memory and sequencing. A few examples show the child how to perform the task and help the child learn the concept.

- The audio for the noun + preposition+ noun 'The fruits are on the table' is played and displayed in a picture. The first noun is 'Fruits,' the preposition is 'on,' and the second noun is 'table.'

II. Instructions for Training

Here the child is given practice with the learned concept and gets feedback for correct and incorrect responses.

- The audio for the noun + preposition+ noun 'The fruits are on the table' is played and displayed in a picture with other pictures. The child has to listen
and memorize and find the noun + preposition+ noun 'The fruits are on the table' played among the other images. Suppose the child completes this task correctly by finding the noun + preposition+ noun. In that case, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect or incomplete response.

### III. Instructions for Testing

They undergo testing with a scoring system to evaluate whether the child understands the concept of item selection of noun + preposition+ noun in auditory memory and sequencing. A score of 1 is given for the correct response, and a score of 0 is for the incorrect answer.

- The audio for the noun + preposition+ noun 'The fruits are on the table' is played and displayed in a picture with other pictures. The child must listen, memorize, and find the noun + preposition+ noun 'The fruits are on the table' played among the other images. If the child completes this task correctly by finding the noun + preposition+ noun, then a score of 1 is given, and a score of 0 is given for the incorrect or incomplete response.

**Find the noun + preposition+ noun—Stimulus material** *(Refer to Pg.no 1257 in Vol 2)*

1. The milk is in the fridge
2. The fruits are on the table
3. The girl was hiding behind the tree
4. The Cat is under the chair
5. The plane was flying above the clouds

**c) Memory of Events** *(Refer Pg.no 1263 in Vol 2)*

The parents must expose the child to the sentences or events in the App. The child has to listen, memorize and repeat the sentences or events. Initially, the child can repeat the sentence or event without sequence; later, they must repeat the sentence or event with sequence. For example, the parent says, 'Meena visited a zoo. She saw many animals in the zoo. She loves animals. If the child repeats it as 'She loves animals. She saw many animals in the zoo. Meena visited a zoo' means that the auditory memory is present, and sequencing needs to be worked on so that the child repeats it in the same order as 'Meena visited a zoo. She saw many animals in the zoo. She loves animals.'
I. Instructions for Preview

Here the child is introduced to the concept of memory of events in auditory memory and sequencing. A few examples show the child how to perform the task and help the child learn the concept.

- The audio for the event 'Ajay cook’s food. He made a sandwich. He shared it with his friends. Everyone liked the sandwich' is played, and the event is in a picture.

II. Instructions for Training

Here the child is given practice with the learned concept and gets feedback for correct and incorrect responses.

- The audio for the event 'Ajay cook’s food. He made a sandwich. He shared it with his friends. Everyone liked the sandwich' is played, and the event is displayed in a picture. The child must listen, memorize and repeat the event that is played. Suppose the child completes this task correctly by repeating the event. In that case, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect or incomplete response.

III. Instructions for Testing

They undergo testing with a scoring system to evaluate whether the child understands the concept of memory of events in auditory memory and sequencing. A score of 1 is given for the correct response, and a score of 0 is for the incorrect answer.

- The audio for the event 'Ajay cooks food. He made a sandwich. He shared it with his friends. Everyone liked the sandwich' is played. The child must listen, memorize and repeat the played event—two choices are 'Completed' and 'Not completed. If the child completes this task correctly by repeating the event, then a score of 1 is given. A score of 0 is for the incorrect response.

Memory of Events– Stimulus material (Refer Pg.no 1263 in Vol 2)

1. Raju is a little boy. He goes to school. He studies there. He comes back by 4 pm.
2. Megha likes to play. She went to the park. She played see-saw. And ate ice cream.
3. Meena visited a zoo. She saw many animals in the zoo. She loves animals.
4. The children had lunch. They shared their food. They enjoyed the food. They went out to play.
5. It was Neelu's birthday. Neelu's mother made a cake. Neelu got many gifts. She thanked everyone.
6. Champa visited a temple. She met her friends there. They prayed and came back home.
8. Balu opened the book. He took the pen. And he wrote in the book.
9. Latha is a doctor. She goes to the hospital. She gives medicines. She treats the patients.
10. Ram has a beautiful garden. It's full of roses. Roses smell good. They are in red.
11. Mary went to the market. She purchased carrots. She came back home by Auto. She made carrot halwa.
12. Radha went with her family to a picnic. They sang and danced. They ate ice cream. They slept.
13. Mini is a teacher. She goes to school. She teaches the children.
14. Nila is a housewife. She takes care of the home. She cooks food for everyone.
15. Ajay cooks food. He made a sandwich. He shared it with his friends. Everyone liked the sandwich.
16. Anu went to a shop. She bought a dress. She wore the dress. She looked pretty.
7.1 Definition

Auditory cognition describes a group of processes by which the brain makes sense of the sound world. It is the ability to infer and process higher-order thinking concepts. It includes the intellectual power to reason, question, predict and infer. Auditory cognition also involves attention, memory, and emotional responses. For example, when the parent says it is raining outside, they should be able to think and understand that they should carry an umbrella while going out.

7.2 Task

The parents have to expose the child to the questions in the App. The child has to listen, understand, reason, and logically answer the question. It has four categories. Auditory cognition or Understanding complex speech - Category 7 in the App (Refer Pg.no 1274 in Vol 2) includes Problem-solving, Cause, and Effect, Guess Who, and Reasoning.

a) Problem-solving (Refer Pg.no 1275 in Vol 2)

Parents have to expose their children to the questions in the App. The question consists of a problem that requires a solution as an answer. The child has to listen, understand and think about a solution for the problem and answer it by choosing the correct answer among the three other options given.

Question: What to do when it rains?
   I. We use an umbrella
   II. We use a cloth to cover our head
   III. We use our hands to cover our head
   Answer: We use an umbrella

I. Instructions for Preview

Here the child is introduced to the concept of problem-solving in auditory cognition. A few examples show the child how to perform the task and help the child learn the concept.

- The audio for the following question is played, and the answer is in a picture.
**Question:** What to do when it rains?

**Answer:** We use an umbrella

### II. Instructions for Training

Here the child is given practice with the learned concept and gets feedback for correct and incorrect responses.

- The audio for the following question with a problem will be played. The options are played and displayed in a picture. The child must listen, understand and think about a solution for the problem and answer it by choosing the correct answer among the three other options given. Suppose the child completes this task by providing the correct answer. In that case, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect response.

**Question:** What to do when it rains?

I. We use an umbrella
II. We use a cloth to cover our head
III. We use our hands to cover our head

**Answer:** We use an umbrella

### III. Instructions for Testing

They undergo testing with a scoring system to evaluate whether the child understands the concept of problem-solving in auditory cognition. A score of 1 is for the correct response, and a score of 0 is for the incorrect answer.

- The audio for the following question with a problem will be played. The options are played and displayed in a picture. The child has to listen, understand and think about a solution for the problem and answer it by choosing the correct answer among the three other options given. If the child completes this task by answering correctly, then a score of 1 is given. A score of 0 is for the incorrect response.

**Question:** What to do when it rains?

I. We use an umbrella
II. We use a cloth to cover our head
III. We use our hands to cover our head

**Answer:** We use an umbrella
Problem-solving – Stimulus material *(Refer Pg.no 1286 in Vol 2)*

1. What to do when it rains?
   I. **We use an umbrella**
   II. We use a cloth to cover our head
   III. We use our hands to cover our head

2. What to do if the house catches fire?
   I. **Call the fire brigade.**
   II. Call the police
   III. Call the Doctor

3. What to do if we get a fever
   I. Visit the police
   II. Visit a shop
   III. **Visit a doctor**

4. What happens when we plant a seed?
   I. It will remain as a seed.
   II. **It grows and becomes a tree.**
   III. Seed becomes double

5. What to do if a dog bites you?
   I. Consult a musician.
   II. Consult the police
   III. **Consult a doctor**

6. What to do if you are hungry?
   I. Watch movie
   II. Have water
   III. **Have food**

7. What to do if you are thirsty?
   I. **Drink water**
   II. Eat food
   III. Go for shopping
8. What happens if you touch fire?
   I. Nothing will happen
   II. Your hands will burn
   III. Your hands will become wet

9. What happens if we prick a balloon?
   I. It becomes big
   II. It will float
   III. It will burst

10. What happens when we pour water into a glass without stopping?
    I. It will hold the water
    II. It will overflow
    III. The water will turn black

b) Cause and effect

i. Level 1 (Refer Pg.no 1297 in Vol 2)

   The parents must expose the child to a sentence or a statement in the App. The sentence consists of a cause and effect. The child has to understand the statement and find the cause and effect.

I. Instructions for Preview

   Here the child is introduced to the concept of cause and effect (level 1) in auditory cognition. A few examples show the child how to perform the task and help the child learn the concept.

   - The audio for the following statement is played. The answer, which has cause and effect, is played and displayed in a picture.

   Statement: She dropped the glass, and the glass broke

   Answer:
   Cause: She dropped
   Effect: Glass broke
II.  *Instructions for Training*

Here the child is given practice with the learned concept and gets feedback for correct and incorrect responses.

- The audio for the following statement is played, and the options are played and displayed in a picture. The child must understand the statement and find the cause and effect. If the child completes this task by finding the cause and effect, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect response.

  Statement: She dropped the glass, and the glass broke  
  **Answer:**  
  **Cause:** She dropped  
  **Effect:** Glass broke

III.  *Instructions for Testing*

They undergo testing with a scoring system to evaluate whether the child understands the concept of cause and effect (level 1) in auditory cognition. A score of 1 is given for the correct response, and a score of 0 is for the incorrect answer.

- The audio for the following statement is played, and the options are played and displayed in a picture. The child must understand the statement and find the cause and effect. If the child completes this task by finding the cause and effect, then a score of 1 is given. A score of 0 is for the incorrect response.

  Statement: She dropped the glass, and the glass broke  
  **Answer:**  
  **Cause:** She dropped  
  **Effect:** Glass broke

**Cause and effect (Level 1)– Stimulus material**  
**Level 1-**State the cause and effect in each sentence *(Refer to Pg.no 1308 in Vol 2)*

1. Balu pushed Rahul so hard that Rahul fell down  
   **Cause:** Balu pushed Rahul  
   **Effect:** Rahul fell down
2. Mary prick the balloon, and it burst
   
   **Cause:** Mary prick the balloon
   
   **Effect:** Balloon burst

3. She dropped the glass, and the glass broke
   
   **Cause:** She dropped
   
   **Effect:** Glass broke

4. The baby was hungry, and she cried
   
   **Cause:** The baby was hungry
   
   **Effect:** She cried

5. Drinking milk increases your immunity.
   
   **Cause:** Drinking milk
   
   **Effect:** Increases your immunity

6. It started to rain. Molly and jolly ran inside the house.
   
   **Cause:** It started to rain
   
   **Effect:** Molly and jolly ran inside the house.

7. Manu switched on the fan, and the fan started rotating.
   
   **Cause:** Manu switched on the fan
   
   **Effect:** The fan started rotating

8. Radha pushed Geeta and Geeta fell down
   
   **Cause:** Radha pushed Geeta
   
   **Effect:** Geeta fell down

9. Ram switched on the car, and the car started moving
   
   **Cause:** Ram switched on the car
   
   **Effect:** The car started moving

10. Sita ate ice cream and got cold
   
   **Cause:** Sita ate ice cream
   
   **Effect:** Sita got cold

11. Ranju ran fast. Therefore, fell down
   
   **Cause:** Ranju ran fast
   
   **Effect:** He fell down
b) **Cause and effect**

ii. **Level 2 (Refer Pg.no 1319 in Vol 2)**

The parents have to expose the child to a phrase or sentence about an event in the App. The event consists of the effect. The child has to understand the event and find the cause among the options given.

**I. Instructions for Preview**

Here the child is introduced to the concept of cause and effect (level 2) in auditory cognition. A few examples show the child how to perform the task and help the child learn the concept.

- The audio for the following sentence consists of the event. The answer, which has the 'cause,' is played and displayed in a picture.

  **Event:** The Street became muddy  
  **Answer:** As it was raining

**II. Instructions for Training**

Here the child is given practice with the learned concept and gets feedback for correct and incorrect responses.

- The audio for the following sentence consists of the event. The options are played and displayed in a picture. The child must listen, understand and understand it and find the cause, which is the correct answer among the three other options. Suppose the child completes this task by providing the correct answer. In that case, a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect response.

  **Event:** The Street became muddy  
  I. As it was raining  
     As it was sunny  
  II. As it was spring  
  **Answer:** As it was raining
III. Instructions for Testing

They undergo testing with a scoring system to evaluate whether the child understands the concept of cause and effect (level 2) in auditory cognition. A score of 1 is given for the correct response, and a score of 0 is for the incorrect answer.

- The audio for the following sentence consists of the event. The options are played and displayed in a picture. The child must listen, understand and understand it and find the cause, which is the correct answer among the three other options. If the child completes this task by providing the correct answer, then a score of 1 is given, and a score of 0 is for the incorrect response.

**Event:** The Street became muddy

I. As it was raining
II. As it was sunny
III. As it was spring

**Answer:** As it was raining

**Cause and effect (Level 2)– Stimulus material**

**Level 2– what will be the cause of the following events (Refer to Pg.no 1330 in Vol 2)**

1. The street became muddy
   I. **As it was raining**
   II. As it was sunny
   III. As it was spring

2. The balloon burst
   I. Due to the air inside
   II. **Someone pricked the balloon**
   III. Due to the breeze

3. The milk overflowed
   I. As milk expanded by own
   II. As milk got bad
   III. **As the fire was on**

4. The fan is rotating
   I. **As it was switched on**
   II. Due to the wind
   III. As it was switched off
5. The child is crying
   I. Because he is hungry
   II. Because he is happy
   III. Because he is naughty

6. The toy car is moving.
   I. As it was switched off
   II. As it was broken
   III. As it was switched on

7. The phone is ringing.
   I. As it was switched off
   II. As the call came
   III. As the battery was dead

8. The child got tooth decay.
   I. Because the child ate a lot of chocolates
   II. Because the child brushed their teeth twice
   III. Because the child ate salad

9. Glass broke because
   I. The glass fell down
   II. The glass had dirt
   III. The glass was smooth

10. The plants and trees are swaying.
    I. Due to the breeze
    II. Due to the vehicles
    III. Due to the noise

c) **Guess who** *(Refer Pg.no 1341 in Vol 2)*

   The parents have to expose the child to phrases or sentences about an event in the App. The event consists of clues to the answer. The child has to understand the event and guess the correct answer among the options given. For example, the parent says the following phrases or sentences to the child. The child has to understand the clues and guess the correct answer.
I. Instructions for Preview

Here the child is introduced to the concept of guess who in auditory cognition. A few examples show the child how to perform the task and help the child learn the concept.

- The audio for the following sentence consisting of clues is played. The answer is played and displayed in a picture.

  Answer: Cow

II. Instructions for Training

Here the child is given practice with the learned concept and gets feedback for correct and incorrect responses.

- The audio for the following sentence consists of clues, and the options are played and displayed in a picture. The child must understand the clues and guess the correct answer among the options given. If the child completes this task by guessing the correct answer, then a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect response.

  I. Cow
  II. Dog
  III. Lion
  Answer: Cow

III. Instructions for Testing

To evaluate whether the child understands the concept of guess who in auditory cognition, they undergo testing with a scoring system. A score of 1 is given for the correct response, and a score of 0 is for the incorrect answer.

- The audio for the following sentence consists of clues, and the options are played and displayed in a picture. The child must understand the clues and guess the correct answer among the options given. If the child completes this task by guessing the correct answer, then a score of 1 is given. A score of 0 is given for the incorrect response.
**Clues:** It’s an animal. Gives us milk. Eats mainly grass.
- I. Cow
- II. Dog
- III. Lion

**Answer:** Cow

**Guess who—Stimulus material** *(Refer Pg.no 1352 in Vol 2)*

1. It's an animal. Gives us milk. Eats mainly grass.
   - I. Cow
   - II. Dog
   - III. Lion

2. It's a pet animal. It's called a man's friend. It barks upon seeing strangers.
   - I. Dog
   - II. Cow
   - III. Camel

   - I. Tomato
   - II. Potato
   - III. Carrot

   - I. Mango
   - II. Grapes
   - III. Apple

5. It is yellow. Very sweet and juicy. Oval in shape with uneven sides. Has a big seed inside? It's called the king of fruits.
   - I. Orange
   - II. Mango
   - III. Watermelon

6. It's a fruit. It is long and curved. Yellow in color. Sweet in taste. Monkeys love them.
   - I. Orange
   - II. Banana
   - III. Grapes
   I. Hippopotamus
   II. Elephant
   III. Tiger

8. It's a vehicle. Have three tires. Carries two to three people from one place to another.
   I. Bicycle
   II. Car
   III. Auto

9. It's a vehicle. It flies in the air. Carries many people from one place to another. It looks like a bird.
   I. Train
   II. Truck
   III. Aeroplane

10. It's a reptile. It crawls on the ground. It’s long. It hisses.
    I. Frog
    II. Snake
    III. Crocodile

d) **Reasoning** *(Refer Pg.no 1363 in Vol 2)*

   The parents have to expose the child to the questions in the App. The question consists of an event and requires Reasoning as an answer. The child has to understand and think about the reason for the event and answer it by choosing the correct answer among the three other options given.

**I. Instructions for Preview**

   Here the child is introduced to the concept of Reasoning in auditory cognition. A few examples show the child how to perform the task and help the child learn the concept.
   
   - The audio for the following question is played. The answer, which consists of the reason, is played and displayed in a picture.

   **Question:** Why do we go to school?
   **Answer:** To study
II. Instructions for Training

Here the child is given practice with the learned concept and gets feedback for correct and incorrect responses.

- The audio for the following question is played. The answer consists of the reason, and the options are played and displayed in a picture. The child must understand the question, reason it out and provide the correct answer among the options given. If the child completes this task by guessing the correct answer, then a thumbs-up symbol is displayed, and a thumbs-down symbol is for the incorrect response.

**Question:** Why do we go to school?

I. To eat
II. To study
III. To play

**Answer:** To study

III. Instructions for Testing

They undergo testing with a scoring system to evaluate whether the child understands the concept of Reasoning in auditory cognition. A score of 1 is given for the correct response, and a score of 0 is for the incorrect answer.

- The audio for the following question is played. The answer consists of the reason, and the options are played and displayed in a picture. The child has to understand the question, reason it out and provide the correct answer among the options given. If the child completes this task by guessing the correct answer, then a score of 1 is given. A score of 0 is for the incorrect response.

**Question:** Why do we go to school?

I. To eat
II. To study
III. To play

**Answer:** To study
Reasoning– Stimulus material (Refer Pg.no 1374 in Vol 2)

1. Why do we go to school?
   I. To eat
   II. To study
   III. To play

2. What happens when one gets sick?
   I. He becomes tired
   II. He becomes energetic
   III. He plays around

3. What happens when one overeats?
   I. He becomes hungry.
   II. Stomach becomes upset
   III. He becomes energetic

4. Why do we eat food?
   I. To fall ill
   II. To fight
   III. To gain strength

5. Why do we go to the hospital?
   I. To play games
   II. To eat ice-cream
   III. To see Doctor

6. Why should we not eat too many chocolates?
   I. Our tongue will pain.
   II. We will feel sleepy
   III. Our teeth will decay.

7. Why should we listen to our parents?
   I. To become bad children.
   II. To become naughty
   III. To become good children.
8. Why should we brush our teeth twice?
   I. To have healthy teeth.
   II. To have decayed teeth.
   III. To smile widely

9. Why do we need to read books daily?
   I. To get knowledge
   II. To impress others
   III. To help others

10. What happens if somebody stamps on a banana peel?
    I. He may fall down
    II. He may dance
    III. He may sing
REFERENCES


A publication by the Department of ENT, JIPMER, Puducherry, India