

Lesson plan for the patient who is not yet ready for hearing aids but desires hearing healthcare

Week	Games	Voices	Comments/Notes
1	* pEARl Crunch, adjust noise to preference	Male	
	* EARonaut, adjust noise to preference	Male	
2	* ShakespEARe	Male	
	* MountainEAR	Male	
3	* FarmEAR in the Dell	Male	
	* Treasure EARland	Male	
4	* pEARl Crunch, adjust noise to preference	Female	
	* EARonaut, adjust noise to preference	Female	
5	* ShakespEARe	Female	
	* MountainEAR	Female	
6	* FarmEAR in the Dell	Female	
	* Treasure EARland	Female	
7	* pEARl Crunch, adjust noise to preference	Child	
	* EARonaut, adjust noise to preference	Child	
8	* ShakespEARe	Child	
	* MountainEAR	Child	
9	* FarmEAR in the Dell	Child	
	* Treasure EARland	Child	
10	* pEARl Crunch, adjust noise to preference	All types	
	* EARonaut, adjust noise to preference	All types	
11	* ShakespEARe	All types	
	* MountainEAR	All types	

	Goals	Tips
Week 1	<p>Play pEARL Crunch at least 10 minutes twice this week with a male talker with the noise adjusted to your preference.</p> <p>Play EARonaut at least 10 minutes twice this week with a male talker with the noise adjusted to your preference.</p>	<p>“pEARL Crunch forces you to pay attention to those endings of words that add subtle meaning, such as the plural “s” in the word <i>boys</i> or the negative “n’t” in the word <i>can’t</i>. These endings are often hard to hear and easy to ignore.”</p> <p>“Start by playing the game in quiet. On the second trial, bump up the noise just a little. On each subsequent trial, bump up the noise just a little more until you reach a point where you are getting three pearls for every necklace. Do not move the bar again but train at this noise level.”</p> <p>“Especially early in your training, it is easier if you try and remember where 3 or 4 pictures are when they are presented on the screen instead of attempting to memorize all of them.”</p> <p>“Try playing a few rounds of EARonaut with the noise bar set to quiet. Over the next rounds, gradually increase the level of background noise and try to determine the maximum of noise that can be present during the game and yet allow you to still hear the male voices speak the words. You might find that you are using a lot more ‘mental effort’ when you are listening in noise than when you are listening in quiet. This is a very natural phenomenon.”</p>

Week 2	<p>Play ShakespEARE at least 10 minutes twice this week with a male talker.</p> <p>Play MountainEAR about 10 minutes twice this week with a male talker. Listen to the single words in noise and try to increase your coins each round.</p>	<p>“This game may help develop your ability to remember the details of a story. It exercises your ‘auditory memory’, which is the brain’s ability to hold in memory words and sentences that you have recently heard.”</p> <p>“If the noise seems to be getting louder, that means that you are actually getting better at listening in noise because the better you do, the more noise is introduced into the training task. The game is programmed to have more noise after you make consecutive correct answers and less noise after you make consecutive incorrect answers.”</p> <p>“This game is important because it may help you to recognize words quickly, which is important when you are listening to connected speech. The typical talker of English speaks between 110 and 150 words per minute. This means that you must have good ‘auditory processing speed’ to understand speech, which is the brain’s ability to quickly process the meaning of words.”</p>
Week 3	<p>Play FarmEAR in the Dell at least 10 minutes twice this week with a male talker. Try to complete 3 rounds in less than 3.5 minutes per round.</p>	<p>“You may find that some of the pictures are a little ambiguous and that it takes some thought to match the word that you hear with the pictures that you see. This ambiguity is intentional. Research has shown that when listening tasks which force the brain to focus on meaning and it requires the brain to think of different possibilities, learning occurs more quickly.”</p>

	<p>Play Treasure EARland at least 10 minutes twice this week with a male talker.</p>	<p>“If the noise seems to be getting louder, that means that you are actually getting better at listening in noise because the better you do, the more noise is introduced into the training task. The game is programmed to have more noise after you make consecutive correct answers and less noise after you make consecutive incorrect answers.”</p>
Week 4	<p>Play pEARl Crunch at least 10 minutes twice this week with a female talker with the noise adjusted to your preference.</p> <p>Play EARonaut at least 10 minutes twice this week with a female talker with the noise adjusted to your preference.</p>	<p>“During every day listening, we tend to listen for the ‘meat’ of the word and not subtle nuances. For instance, we often do not distinguish between the words <i>smile</i> and <i>smiles</i>. This game forces you to pay attention to word endings. Think about it: There’s a big difference between, “<i>I can</i> pick you up from the airport” and “<i>I can’t</i> pick you up from the airport.”</p> <p>“Start by playing the game in quiet. On the second trial, bump up the noise just a little. On each subsequent trial, bump up the noise just a little more until you reach a point where you are getting three pearls for every necklace. Do not move the bar again but train at this noise level.”</p> <p>“Female voices are particularly difficult to hear in background noise. Try playing a few rounds of EARonaut with the noise bar set to quiet. Over the next rounds, gradually increase the level of background noise and try to determine the maximum of noise that can be present during the game and yet allow you to still hear the female voice</p>

		<p>speak the words. You might find that you are using a lot more 'mental effort' when you are listening in noise than when you are listening in quiet. This is a very natural phenomenon."</p> <p>"This game is important because it is developing your auditory memory, or ability to keep words in your mind as you listen."</p> <p>"Try playing a few rounds of EARonaut with the noise bar set to quiet. Over the next rounds, gradually increase the level of background noise and try to determine the maximum of noise that can be present during the game and yet allow you to still hear the female voices speak the words. You might find that you are using a lot more 'mental effort' when you are listening in noise than when you are listening in quiet. This is a very natural phenomenon."</p>
Week 5	<p>Play ShakespEARE at least 10 minutes twice this week with a female talker.</p> <p>Play MountainEAR at least 10 minutes twice this week with a female talker.</p>	<p>"At first you may have a hard time remembering which sentence came first, second, third, fourth and fifth. Try to get at least three sentences in the correct order for each paragraph."</p> <p>"This game may help you listen more effectively in the presence of background noise because it forces you to pay attention to the target word and ignore competing speech."</p> <p>"Sometimes you might be confused and not be able to decide which picture matches</p>

		<p>the word that you just heard. This is okay. This game will require that you make quick decisions about what you heard and sometimes this is hard to do.”</p>
Week 6	<p>Play FarmEAR in the Dell at least 10 minutes twice this week with a female talker.</p> <p>Play Treasure EARland at least 10 minutes twice this week with a female talker.</p>	<p>“Try to ignore the background noise and pay attention to which picture matches the word you’ve just heard. This activity will develop ‘auditory attention’, which is the brain’s ability to focus on one auditory stimulus and ignore other auditory stimuli that are irrelevant and distracting.”</p> <p>“Try to ignore the noise and pay attention to which picture matches the word you’ve just heard. This activity will develop ‘auditory attention’, which is the brain’s ability to focus on one auditory stimulus and ignore other auditory stimuli that are irrelevant and distracting.”</p> <p>“Even though this game is designed to develop your phoneme discrimination, which is your ability to decide whether two sounds are the same or different, it is also developing your ability to focus on the meaning of words and developing your sense of self-confidence in your listening abilities.”</p>
Week 7	<p>Play pEARl Crunch for at least 10 minutes twice this week with a child talker with the noise adjusted to your preference.</p>	<p>“Start by playing the game in quiet. On the second trial, bump up the noise just a little. On each subsequent trial, bump up the noise just a little more until you reach a point where you are getting three pearls for every necklace. Do not move the bar again but train at this noise level.”</p> <p>“When background noise is present, often the first thing a person with hearing loss</p>

	<p>Play EARonaut for at least 10 minutes twice this week with a child talker with the noise adjusted to your preference.</p>	<p>will notice is that word endings seem to ‘disappear’.” pEARl Crunch is designed to focus your attention specifically on these word endings and let you experiment with how your ears and brain respond to the presence of background noise.”</p> <p>“Remembering words is very important when you are listening to everyday conversations. When you hear a word, try to visualize which planet hides the corresponding picture.”</p> <p>“Try playing a few rounds of EARonaut with the noise bar set to quiet. Over the next rounds, gradually increase the level of background noise and try to determine the maximum of noise that can be present during the game and yet allow you to still hear the child voices speak the words. You might find that you are using a lot more ‘mental effort’ when you are listening in noise than when you are listening in quiet. This is a very natural phenomenon.”</p>
Week 8	<p>Play ShakespEARe at least 10 minutes twice this week with a child talker.</p> <p>Play MountainEAR at least 10 minutes twice this week a child talker.</p>	<p>“Very often in conversations, we “tell stories” about what happened during the day. In this game, you will practice paying attention to the beginnings, middles, and endings of stories.”</p> <p>“Background noise will make children’s voices especially difficult to understand. This is because children tend to talk more softly than adults and because noise is especially detrimental to high pitched voices.”</p>

<p>Week 9</p>	<p>Play FarmEAR in the Dell at least 10 minutes twice this week with a child talker.</p> <p>Play Treasure EARland at least 10 minutes twice this week with a child talker.</p>	<p>“You are learning to recognize common words that occur frequently in everyday conversation. Over time, this kind of training will make listening easier for you.”</p> <p>“One purpose of Treasure EARland is to increase your confidence in your abilities to recognize words. Research has shown that when you doubt your ability to hear words correctly, you actually don’t hear them as well as when you have high confidence in your ability. The mind becomes distracted by the doubt.”</p>
<p>Week 10</p>	<p>Play pEARl Crunch at least 10 minutes twice this week with all types of talkers with the noise adjusted to your preference.</p> <p>Play EARonaut at least 10 minutes twice this week with all types of talkers with the noise adjusted to your preference.</p>	<p>“Even though listening to all types of talkers is more difficult than listening to a single type of talker, such as a male voice, research has shown that training with all types mixed together leads to faster learning and to better generalization to everyday listening than does training with a single talker type.”</p> <p>“Start by playing the game in quiet. On the second trial, bump up the noise just a little. On each subsequent trial, bump up the noise just a little more until you reach a point where you are getting three pearls for every necklace. Do not move the bar again but train at this noise level.”</p> <p>“Try playing a few rounds of EARonaut with the noise bar set to quiet. Over the next rounds, gradually increase the level of background noise and try to determine the maximum of noise that can be present during the game and yet allow you to still hear the voices speak the words. You might find that you are using a lot more</p>

		‘mental effort’ when you are listening in noise than when you are listening in quiet. This is a very natural phenomenon.”
Week 11	<p>Play ShakespEARE at least 10 minutes twice this week with all types of talkers.</p> <p>Play MountainEAR at least 10 minutes twice this week with all types of talkers.</p>	<p>“Try to ignore the sound of the talkers’ voices and to focus on the meaning of the sentences that they are speaking. This will develop your ability to understand spoken stories.”</p> <p>“Sometimes you might be confused and not be able to decide which picture matches the word that you just heard. This is okay. This game will require that you make quick decisions about what you heard and sometimes this is hard to do.”</p>
Week 12	<p>Play FarmEAR in the Dell at least 10 minutes twice this week with all types of talkers.</p> <p>Play Treasure EARland at least 10 minutes twice this week with all types of talkers.</p>	<p>“Training with all types of talkers is the most difficult training task. However, research shows that training with “multiple talkers” is most effective in training the brain to recognize common, everyday words.”</p>

