Expanded Skills Lesson Plan:

Edible Audiogram

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Subject: Exceptional Student Education, Special Skills Courses, Expanded Skills (7763020, 7863070, 7963050)

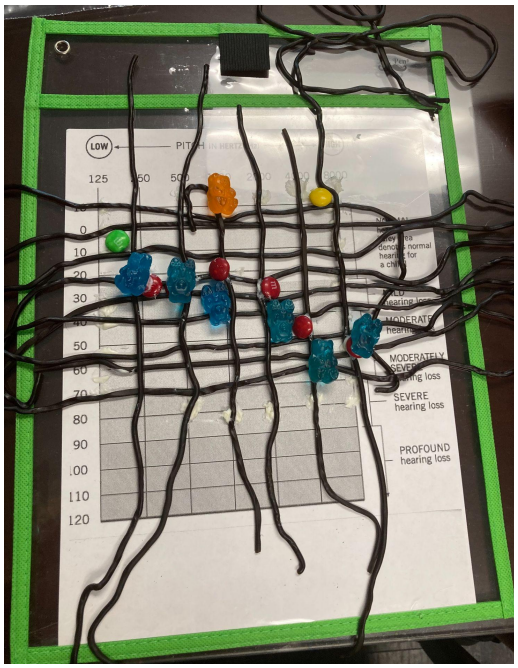
Length of Lesson:

Grade Level: K-8

Standard:
SP.PK12.DH.3.3a Identify the basic information on an audiogram. (K-5)
SP.PK12.DH.3.3b Explain the meaning of information on own audiogram to parents, teachers, and peers. (6-8)

Resources needed:

1. A copy of the student's most recent audiogram
2. Copy of attached blank audiogram (Enlarge it when printing.)
3. Plastic covering for blank audiogram (either laminate or use reusable clear pockets)
4. Copy of enclosed audiogram of familiar sounds
5. Wet wipes
6. Ziplock bag
7. Licorice rope that looks like shoestrings and can be found on Amazon, thicker versions do not work.
8. Mini-sized gummy bears (regular size is too large; mostly blue)
9. M&M's (mostly red)
10. Vanilla frosting
11. Spoon
12. Paper plate
13. Leo Gets Hearing Aids (Riski & Klakow, 2014) or Oliver Gets Hearing Aids (Riski & Klakow, 2001) (free)
    a. Leo Gets a Hearing Aid interactive ebook is available as an iPad app called Phonak Leo (Phonak AG, n.d.).



Optional additional extension resources available in the RMTC-DHH Media and Materials Loan Library:



- *Advocacy in Action* (Bitz & Musselman, 2017, p. 73-77) has downloadable worksheets to learn the parts of the audiogram.
- *Steps to Success* (Price, 2016, p. 42-51) has a topic on locating and defining information on an audiogram and describing differences in degrees of hearing.

Vocabulary:
Audiogram, frequency, low pitch, high pitch, intensity, volume, soft sound, loud sound, hertz (HZ), decibels (dB), speech string bean, left ear (blue X), right ear (red O), normal range, mild hearing loss, moderate hearing loss, moderately severe hearing loss, severe hearing loss, profound hearing loss, speech sounds, conductive loss, sensorineural loss

Topic: Labeling an audiogram

Expectations

By the end of this lesson students should be able to:

- identify their hearing loss type (mild, moderate, severe…).
- graph their hearing threshold for both ears onto an audiogram.
- identify sounds that are difficult for them to hear.
- identify the names of the different parts of the audiogram.
- locate the different parts of the audiogram.

Content

What do I want the learners to know and/or be able to do?
Today learners will:

- Explain the meaning of information on their own audiogram to parents, teachers, and peers.

Learning Context

10 minutes	**Background** Consider these matters in context and connect them to the students' own experiences. **Question:** How do you measure the ability to hear? **Question:** What does it mean to have different levels of hearing? **Seek:** What are your hearing levels? Choose an opening activity:

	1. Play a variety of sounds and have students say if they can or cannot hear the sound. 2. Have the student participate in the Ling 6 (Manley, 2016) or Ling-Madell-Hewitt 10 Sound Test (LMH Speech Perception Test) (Listen with Lynn, n.d.) at various distances and with different levels of sound. Discuss what they could and could not hear. 3. Read either Leo Gets Hearing Aids or Oliver Gets Hearing Aids.
45 minutes	**Activity** **Preparations:** 1. Place a blank audiogram in a clean plastic covering. 2. Tear apart the licorice so you have lengths that match the frequency and intensity lines on the blank audiogram. 3. Count out enough red M&Ms for the students to graph their right ear on the blank audiogram 4. Count out enough blue gummy bears for the student to graph their left ear on the blank audiogram. 5. Spoon some frosting onto a plate for the student. **Procedures:** 1. Review with students what type of hearing loss they have (e.g., moderate sensorineural bilateral loss) 2. Review with the student the parts of the audiogram - names and locations from the vocabulary list. 3. Give the student a copy of their most current audiogram and review it with them. 4. Place the blank audiogram (with the plastic covering over it) in front of the student. 5. Ask the student to show you where the frequency is located on the blank audiogram. 6. Have the student use their finger to spread the frosting onto the plastic covering by tracing the frequency lines. 7. While they are spreading the frosting ask them where the low pitch sounds are and where the higher pitches are located on the graph. 8. Have the student place the licorice over the frosting - try to make it as straight as possible and pat down the licorice. 9. Ask the student to show you where the intensity is located on the blank audiogram. 10. Have the student use their finger to dab the frosting onto the licorice at the intersections for frequency and intensity. 11. While the student is dabbing the frosting, ask them where the quiet or softer sounds are and where the louder sounds are located on the graph.

	12. Have the student place the leftover licorice along the intensity lines and be sure to pat down the licorice where the frosting is, trying to make the licorice as straight as you can. 13. Tell them that they are now going to use their most current audiogram to graph their hearing threshold for each ear onto the blank audiogram. 14. Ask the student if an X or an O represents the left ear (be sure to start with the left ear because it is hard to place the gummy bears on top of the M&M's if the thresholds are the same) 15. Ask the student what color represents the left ear: red or blue? 16. Ask the student which candy they think we are going to use for the left ear- M&M's or gummy bears, then what color gummy bear - blue. 17. Have the student locate the first threshold for the left ear on their audiogram and then on the blank audiogram. 18. Have them place a dab of frosting on the bottom of a gummy bear and then place the gummy bear onto the graph in the correct position. 19. Continue steps 17 and 18 until all thresholds for the left ear have been completed. 20. Ask the student why we are using the M&M's for the right ear and what color M&M we should use for the right ear (red). 21. Have the student locate the first threshold for the right ear on their audiogram and then on the blank audiogram. 22. Have them place a dab of frosting on the bottom of an M&M and then place the M&M onto the graph in the correct position. 23. Continue steps 21 and 22 until all thresholds for the right ear have been completed. (The blank audiogram does not show all of the thresholds used by some audiologists. I just skipped those that were not on the blank audiogram). 24. Show the student the audiogram of familiar sounds and ask them which sounds they think would be hard for them to hear and which ones they would most likely not be able to hear. 25. Let the student pick a few sounds to graph on the edible audiogram and a few M&Ms or gummy bears that are not red or blue. 26. The student may either eat the candy now or put it in a resealable storage bag for later. 27. Use wet wipes to clean hands and the plastic covering on the blank audiogram.
5 minutes	• Students will explain their audiogram and what it means.

References

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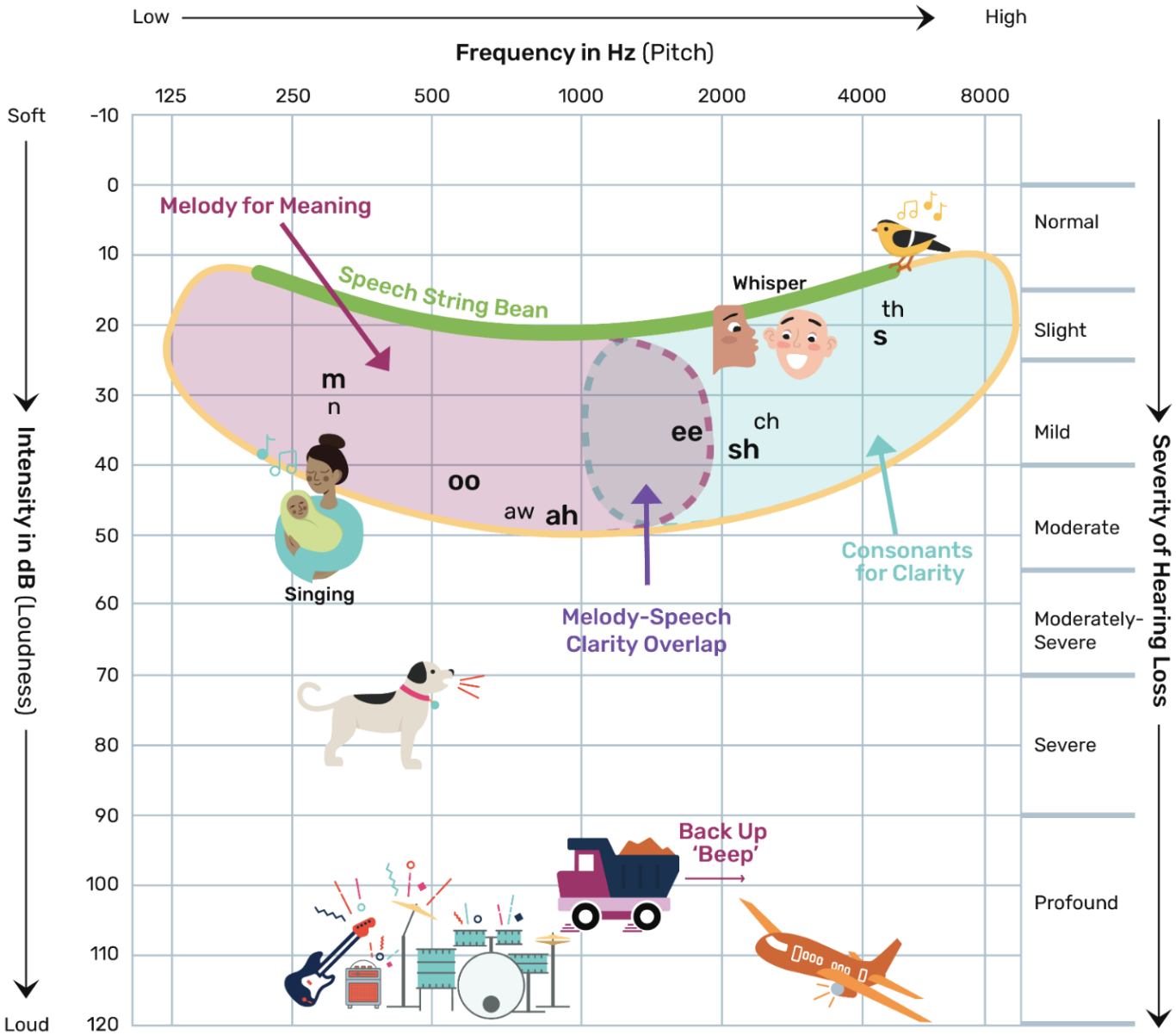
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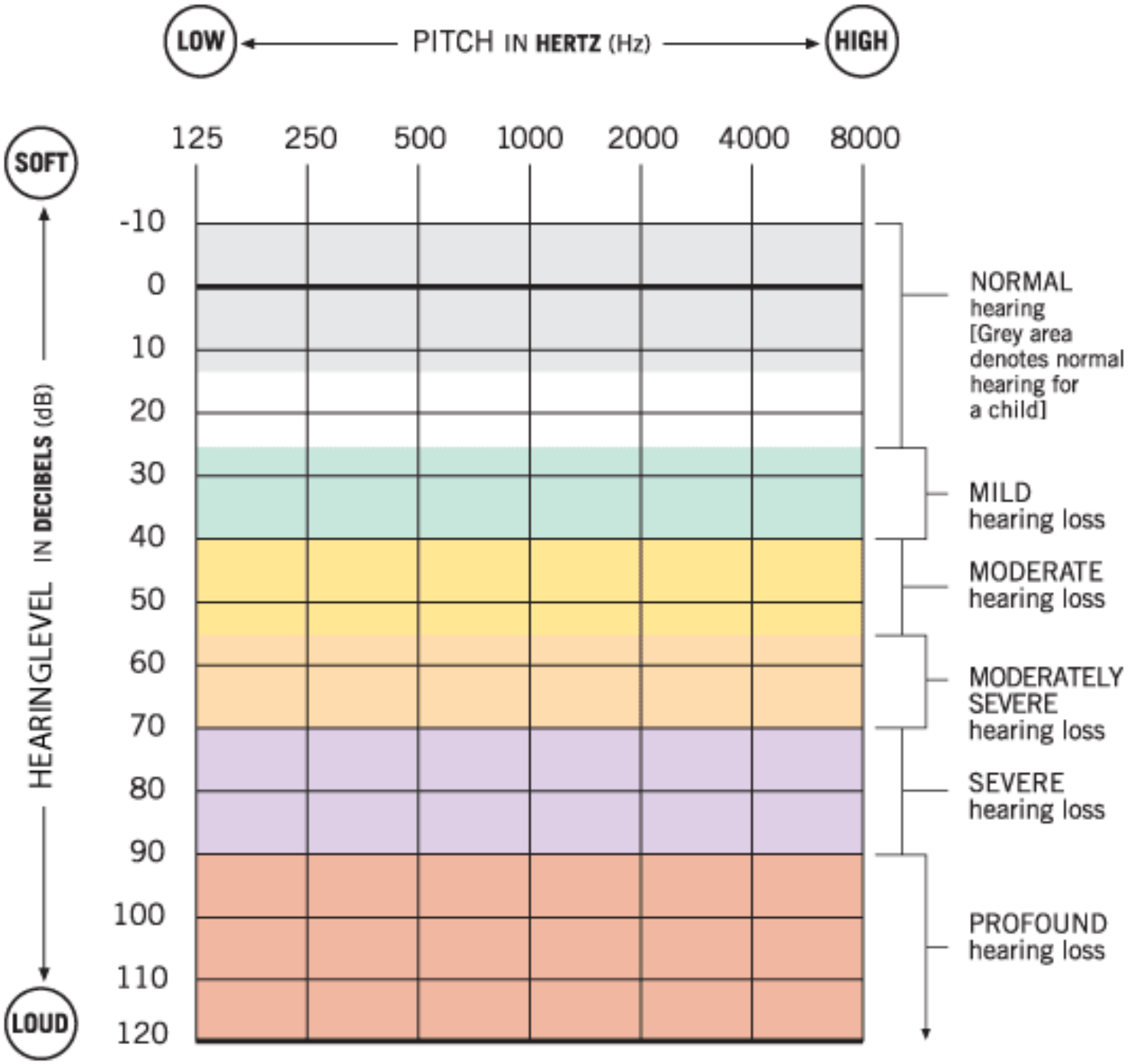
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Familiar Sounds Audiogram



HEARING FIRST 2021

(Hearing First, 2021, p.3)



(Claridge & Cooling, 2006)