

Welcome and house keeping

- **Follow up Email:**

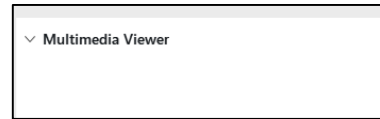
- You will receive a follow up email with your Attendance Certificate and a PDF of the slides within a week.

- **Mics and Videos:**

- All participant mics are muted and we are not using video to save bandwidth

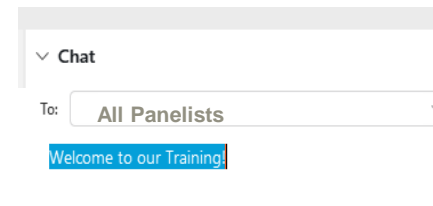
- **Multi-Media box:**

- Find Live Captioning here



- **Chat Box:**

- Direct questions to “ALL PANELISTS”
- Share your reflections and ideas as you participate
- We will look for your chats along the way!
- You won’t see each other’s comments – we’ll address them



- **Screen size:**

- You can make the presentation full screen, or by moving your mouse to the far right of the screen, you’ll have the ability to zoom in and out on a slide.



Find all resources
referenced in this
presentation:

<https://www.phonakpro.com/us/en/training-events/other-training/pediatrics/pediatric-events/past-events/bts-2020.html>

CEU documents will be emailed
from CVENT within 2 weeks
of your event

In the Chat box

Who is with us today?
Name, where you work,
a fun fact about you!

All Panelists:

Lisa here, and I'm with
Phonak. In COVID times, I
am eating way too much
chocolate! 😊





Hearing and Learning:

Diverse teaching methodologies

Hearing and Learning in 2019 vs 2020

2019



VS

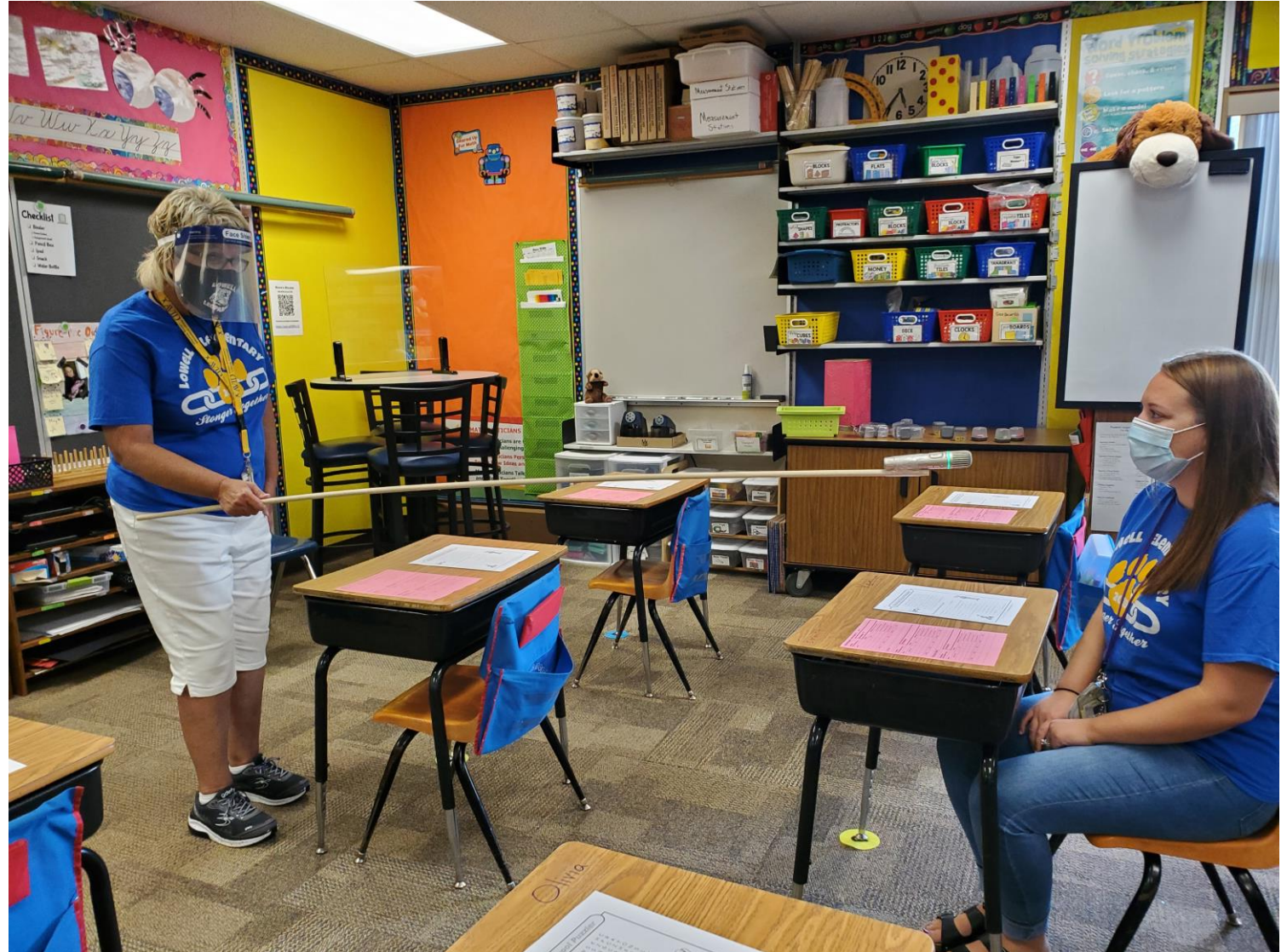
2020



Thinking outside the box

Teachers from
Waukesha County Special Ed Co-Op

“This is what I have done with
my Pass-arounds. We have
not knocked out anyone yet
and the kids love it.”



In the Chat box, tell us:

What successes have you had despite COVID challenges?

To Everyone:

“Got my equipment checked out! I’m ready to help the students in this new set up!”





Over 45 year commitment

- Passionate about helping kids
- Invest in research and evidenced-based solutions to make it easier for you
- Partner with Industry Leaders in Pediatrics
- Host international pediatric conferences



**From cradle to career,
Phonak partners with you to help young people live a life without limits**

Together with Phonak.....

I GOT THIS!



Agenda

1. Meet your Phonak support team
2. Hearing and Learning: Roger in Education
3. COVID-19 Considerations
4. Vignettes
5. Resources



Meet your Phonak
support team

Our peds field team



Sarah Benner
Pediatric Territory
Manager
AK, N CA, ID, MT,
OR, WA and WY
x 9648



Evan Claytor
Pediatric Territory
Manager
DE, NJ, NY, E PA
x 9635



Lisa Dyre
National Pediatric Clinical
Trainer / Territory Manager
AR, LA, MO, NM, OK
and TX
x 9632



Stacy Michels
Pediatric Territory
Manager
IL, IA, KS, MN, NE,
ND, SD, and WI
x 5171



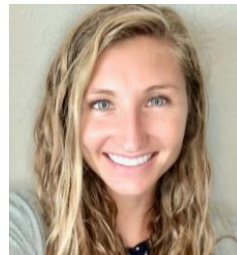
Kathryn Pegan
Pediatric Territory
Manager
AL, FL, GA, MS, SC
W. TN AND PR
x 9778



Patty Shappell
Pediatric Territory
Manager
AZ, CO, HI, NV, UT,
S. CA and Guam
x 5003



Dana Ulakovic
Pediatric Territory
Manager
CT, ME, MD, MA,
NH, NC, RI, VT,
VA and DC
x 9568



Morgan White
Pediatric Territory
Manager
IN, KY, MI, OH, W. PA,
E. TN and WV
x 9524



Cybill Johnson
Pediatric
Inside Sales
Manager
x5293

Director of Pediatric Sales



Dawn Aerts
Director of
Pediatric Sales
x5275

Your Phonak School Desk

Customer Service



Margie Locke
Specialty Customer
Care Manager
x 9558



Lindsey Taylor
Specialty Supervisor
Customer Care
x 5212

School Desk Customer Care Team



Mike Jacobs
SR Customer Care
Representative
x 9608



Starlita Abrams
Customer Care
Representative
x 5091



David Amato
Customer Care
Representative
x 5183



Sinetra Lee
Customer Care
Representative
x 9658



Important Phone Numbers

888-777-7316

School Desk

option 1 Customer Service

Audiology Tech Support

option 2

800-679-4871

Consumer questions

on Bluetooth and Roger connectivity

Tech Support



School Desk email contact information

Provides faster service and better order tracking

- schoolquotes@phonak.com – email exclusively for quote requests
- schoolorders@phonak.com – email exclusively for orders
- schoolhelpdesk@phonak.com – all other questions and needs

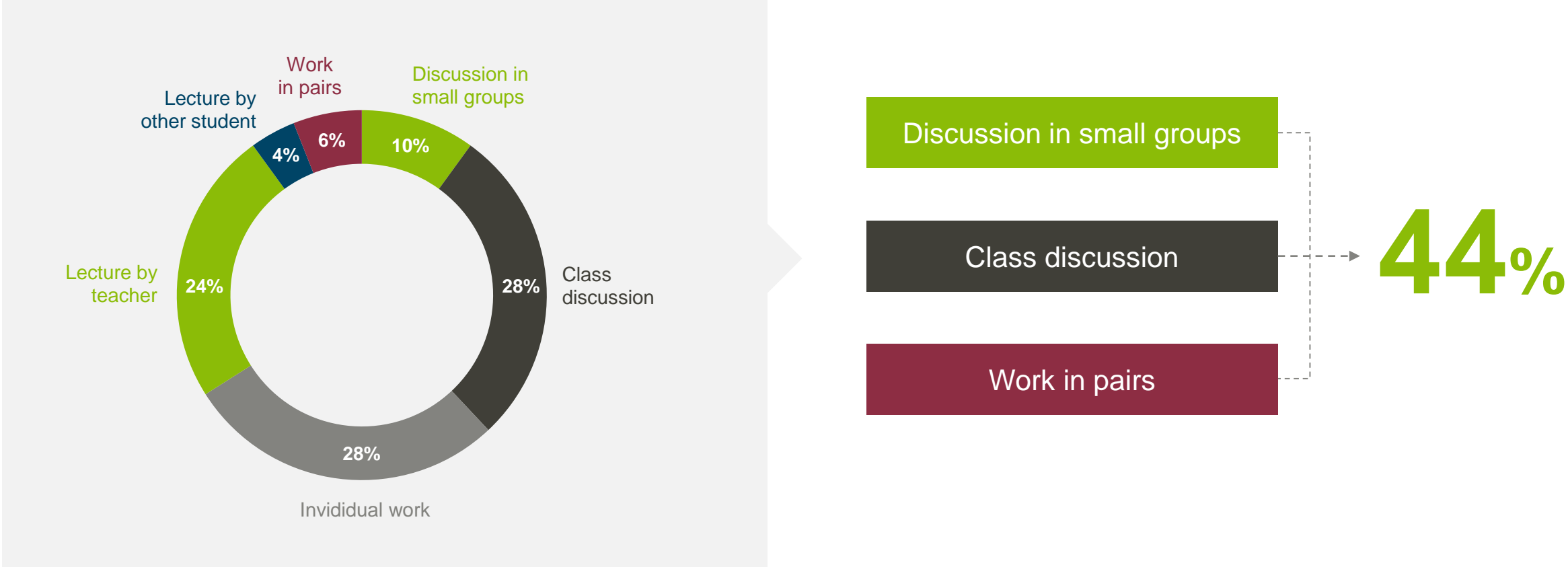


Hearing and Learning: Roger in Education

Education
is so much
more than
lecture
teaching

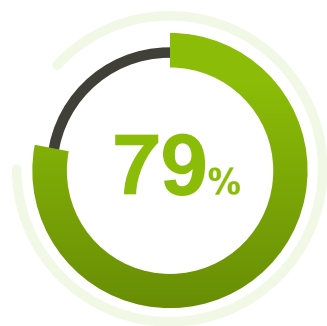


Interactive class discussions and group collaboration have been found to represent over 40% of a student's learning opportunities in school



Lejon, A.K. (2013). Inclusion or exclusion: Children with hearing loss, are they really integrated into the classroom? White paper. http://www.comfortaudio.com/cms/documents/pdfupload/archive/inclusionorexclusion_1408630969.pdf

Also, multimedia devices are being used more frequently in schools



79% of surveyed schools reported use of smart devices such as tablets in school.

Ofcom. (2019). Children and parents: Media use and attitudes report 2018. Retrieved from <https://www.ofcom.org.uk/research-and-data/media-literacy-research/childrens/children-and-parents-media-use-and-attitudes-report-2018>, accessed August 19th, 2019.



Roger offers a variety of solutions to support diverse teaching methodologies and needs

Roger Touchscreen provides versatility with lanyard mode for lectures and small group mode for group discussions and activities

Roger Multimedia Hub gives easy access to audio-visual technologies used by the class or by an individual student.



Roger Pass-around mic ensures all students can be involved in the discussions, learn incidentally, and stay engaged

Roger Digimaster 5000 / 7000s improve acoustic environments by providing soundfield amplification of speech sounds

Roger offers full compatibility and full flexibility

Full Compatibility

Roger is the only technology in the market that provides full compatibility to multiple hearing aid brands and cochlear implants.



Full Flexibility

Roger supports multiple teaching approaches and styles thanks to the Roger system consisting of a variety of products and solutions.

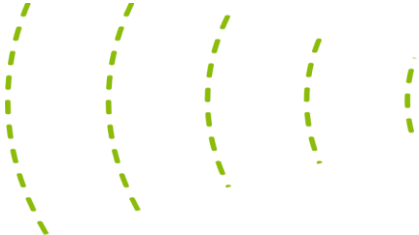
Hearing aids: Marvel & Paradise

- **Fantastic sound processing**
Kids hear great!
- **RogerDirect feature**
No Roger receivers to attach: Simply install for easy access to Roger!
- **Universal Bluetooth connectivity**
Easy Classic Bluetooth connections to so many multimedia device such as tablets used in the school





So simple and easy!



Roger X
Part Number 052-3113-X02P5
Charges apply

Roger Installer
Part Number 055-3033
No charge



Roger receiver overview



Roger 18



Roger 19



Roger X



Roger MyLink



**ComPilot (I or II)
with Roger X**



Roger 17



Roger 20



Roger 21



Roger Focus

Hearing and Learning

- ✓ A key element of learning is hearing
- ✓ Modern curriculum includes collaboration and discussion as well as lecture style teaching
- ✓ Phonak has solutions to help even the auditory playing field for all students



COVID-19 Considerations



COVID-19: Changed our World

Personal increases in stress and worry:

- Employment uncertainties
- Added responsibilities with children and family at home
- Food and shelter insecurities

Professional challenges for Ed Auds, TDDH, TODs:

- Infection control
- Masks and distance impact communication and learning
- Multi-scenario landscape
- Multi-professional landscape

Keep calm and ...

- Wash your hands
- Don't touch your face
- Social distance
- Wear a mask



Scenarios for learning



In person
Lectures,
multimedia,
multi-sensory

Virtual
Reliance on reading,
technology, parent
involvement

Hybrid
All the above, plus,
equipment going
back and forth,
parent involvement

Snapshot of the 15 largest school districts in the country

Source:
Education Weekly

<https://www.edweek.org/ew/section/multimedia/school-districts-reopening-plans-a-snapshot.html>

| District | State | 2018-19 Enrollment (NCES) | Last verified | District reopening plan | Start date |
|-------------------------------------|-------|---------------------------|---------------|-------------------------|------------|
| New York City | NY | 960,484 | 08/20/2020 | Hybrid/Partial | Undecided |
| Los Angeles Unified | CA | 495,255 | 08/18/2020 | Remote learning only | 08/18/2020 |
| City of Chicago (SD 299) | IL | 359,476 | 08/20/2020 | Remote learning only | 09/08/2020 |
| Miami-Dade | FL | 350,434 | 08/20/2020 | Remote learning only | 08/31/2020 |
| Clark County | NV | 330,225 | 08/19/2020 | Remote learning only | 08/24/2020 |
| Puerto Rico Department Of Education | PR | 307,282 | 08/17/2020 | Remote learning only | 08/17/2020 |
| Broward | FL | 270,978 | 08/19/2020 | Remote learning only | 08/19/2020 |
| Hillsborough | FL | 220,252 | 08/20/2020 | Remote learning only | 08/24/2020 |
| Houston ISD | TX | 209,772 | 08/20/2020 | Remote learning only | 09/08/2020 |
| Orange | FL | 208,203 | 08/10/2020 | Remote learning only | 08/10/2020 |
| Palm Beach | FL | 192,533 | 08/20/2020 | Remote learning only | 08/31/2020 |
| Fairfax County | VA | 187,797 | 08/20/2020 | Remote learning only | 09/08/2020 |
| Hawaii Department of Education | HI | 181,278 | 08/17/2020 | Hybrid/Partial | 08/17/2020 |
| Gwinnett County | GA | 179,758 | 08/12/2020 | Remote learning only | 08/12/2020 |
| Montgomery County | MD | 162,680 | 08/20/2020 | Remote learning only | 08/31/2020 |

No matter your learning style, everyone wants to know about ...



Infection control and cleaning



Masks

How to disinfect Roger

Phonak continues to recommend water-based disinfectant solutions or 70% isopropanol solutions on their devices. While new additions to EPA approvals are being made regularly, the R&D teams at Sonova do not have test results to specify how unique sterilization agents may degrade its devices: this is true for both 'normal' sanitization cadences and the increased cleaning standards due to COVID-19. That said, a certain amount of “wear and tear” should be expected on surfaces.



Resources:

- [COVID-19 Guidelines for sanitizing Roger products in classrooms](#)
- [How-to](#) disinfecting different types of hearing devices

More Tips

- Avoid excessive wiping
- Unplug any cable from the technology
- **DO NOT** submerge in liquid
- **DO NOT** use abrasive cleaners, bleach, or abrasives

How to Clean and Disinfect your Hearing Devices **PHONAK** life is on

What You Will Need

Brushes, Spare Batteries, Green Tubing Cleaning Lines, Air blower

Phonak Cleaning Kit

- Microfiber Cloth
- Vent cleaner
- Magna(Wax removal tool)
- Brushes
- Tubing Cleaning lines (for SlimTubes)
- Air blower (for BTE)

Basic BTE Cleaning

You will need: Microfiber cloth, brush, vent cleaner, and air puffer.

STEP 1 Visual inspection: check your hearing aid for wax or dirt.

STEP 2 Use the cloth and brush to remove wax and dirt from the hearing aid and earmold - try your best not to push the wax into the tube.

TIP Brush towards the ground so that any debris falls out of the mold and tubing.

STEP 3 Insert the vent cleaner through the vent in the mold to remove wax and dirt.

STEP 4 Wash your earmold occasionally.

IMPORTANT If the tubing is hard, do not remove it. It will need to be changed by a hearing care professional.

- Remove the earmold from the earhook of the aid
- Wash the mold in warm soapy water
- Dry the mold with a tissue
- Use the air puffer to remove moisture
- Reattach the tube to the hearing aid by pushing it back onto the earhook

Are you ready to get started?
CLICK HERE for Phonak's How to Videos for Cleaning



Specific products from the EPA's List-N

- In context of the above, and according to the EPA's criteria, these following are safe cleaning agents for our products.
- Our local team knows that schools and pediatric clinicians only have minutes to disinfect devices, so cleaning solutions that have short contact times are important!

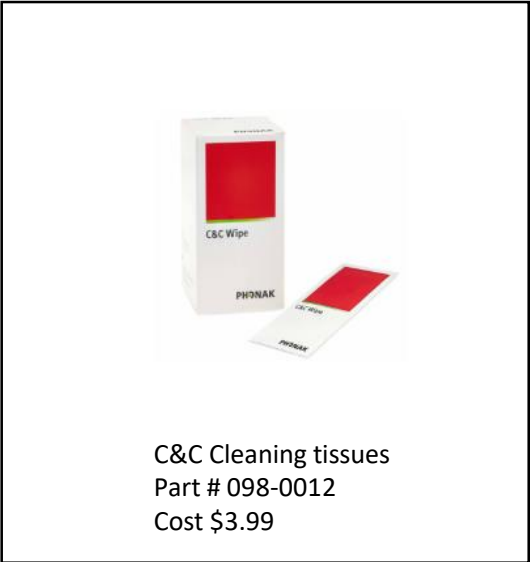
| EPA Registration Number | Active Ingredient(s) | Product Name | Company | To kill SARS-CoV-2 (COVID-19), follow disinfection directions for the following virus(es) | Contact Time (in minutes) | Formulation Type | Surface Types | Use Sites | Emerging Viral Pathogen Claim? | Date Added to List-N |
|-------------------------|--|---|---|---|---------------------------|------------------|---|--|--------------------------------|----------------------|
| 70144-2 | Quaternary ammonium; Isopropanol (Isopropyl alcohol) | Opti-Cide 3® Wipes | Micro-Scientific LLC | Rotavirus; Rhinovirus | 3 | Wipe | Hard Nonporous (HN) | Healthcare; Institutional | Yes | 4/9/2020 |
| 9480-4 | Quaternary ammonium; Isopropanol (Isopropyl alcohol) | Super Sani-Cloth Germicidal Disposable Wipe | Professional Disposables International Inc <i>Oaktree usually carries this</i> | Rhinovirus 39; Adenovirus | 2 | Wipe | Hard Nonporous (HN); Food Contact Post-Rinse Required (FCR) | Healthcare; Institutional | Yes | 3/19/2020 |
| 10492-4 | Quaternary ammonium; Isopropanol (Isopropyl alcohol) | Discide Ultra Disinfecting Towelettes | Palmero Healthcare LLC | Adenovirus Type 2 | 1 | Wipe | Hard Nonporous (HN) | Healthcare; Institutional; Residential | Yes | 6/11/2020 |

Other options

But if you're not looking for a specific product with a registered EPA #, there are easy to get, inexpensive cleaners.

| Description | Example A | Example B |
|--|---|---|
| <p>70% isopropanol <i>Buy at the store</i> When discussing hand sanitization, the CDC says using this in hand sanitizer and washing for 20 seconds is effective.</p> |  |  |
| <p>FOR PHONAK PRODUCTS USE 70% Alcohol that is Isopropyl only</p> | <p>Equate 70% Isopropyl Alcohol Prep Pads, 32 Oz</p> | <p>CVS Health Isopropyl Rubbing Alcohol 70% Wipes, 40CT</p> |

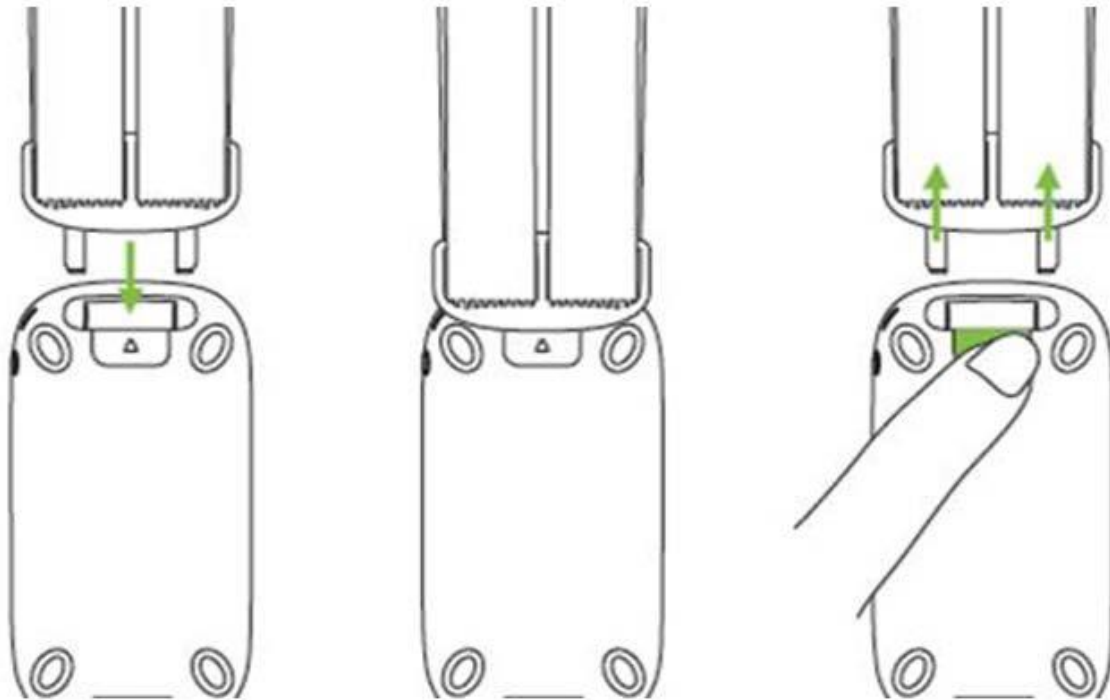
Simple and inexpensive alcohol prep pads and wipes meet both the CDC's guidance for cleaning electronics and input from Phonak.



A commonly used disinfectant wipe for hearing systems and earmolds

*contains Quaternary ammonium

Touchscreen Mic and lanyards



Attaching and removing the lanyard: Simply click the lanyard into slots on the back of the Touchscreen Mic. To remove: press the button on the back and pull down on the microphone at the same time.

Touchscreen Mic lanyard [055-3005]
Roger inspiro lanyard [004-3179-001]
Roger Select lanyard [055-0329]
Roger Pen lanyard [052-3198]

Lanyards are \$5 each

Roger and masks



Roger use while wearing a face mask will provide the known benefits of Roger for hearing in noise and over distance

Sound quality may be perceived differently as a result of high-frequency attenuation

- Type of mask worn
- The position of the mask
- The speaker's voice



Internal tests with Roger Touchscreen Mic

- Lanyard/lapel mode is less impacted by the presence of a face mask than a boom microphone
- Wear the boom mic outside of the mask an inch away from the mask to avoid noisy contact cues

Extra counseling may be in order to help patients cope with the loss of visual cues

Touchscreen Mic and a Boom mic



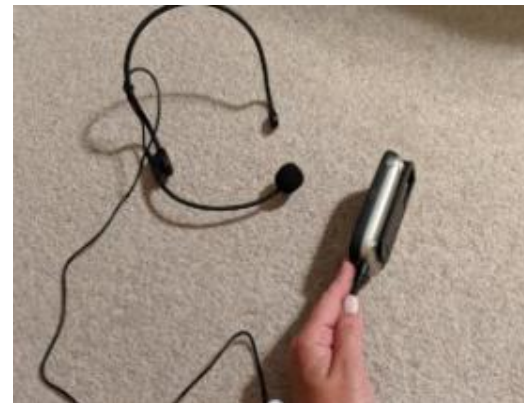
Belt Clip: Use with optional boom mic only

Picture Descriptions: Back view of the Touchscreen Mic with the belt clip / belt clip alone / Touchscreen Mic plus belt clip and boom mic side view

Part numbers:

Belt Clip 004-4031

Boom Mic 055-3009



PPE: A guide for wearing masks with hearing aids



Face masks can be scary for kids

Make it fun by implementing some creative ideas!

- Have their favorite toy wear a mask
- Dress up as a superhero with mask
- Make a mask together
 - Use a fun print or design
 - Use a bandana or a scarf
 - Guidelines available at www.cdc.gov
- Watch online books and videos to lighten the topic

Don't lose the hearing aids

- Hearing aids first, mask second
 - Elastic secures the hearing aids
- Remove the mask slowly and carefully
 - Important for infection control
 - Limits hearing aid loss
- Use sweatbands, headbands or hats
 - Safety pins or Buttons can be placed on both sides of a sweatband or hat

Phonak PPE Supplies



| Product | Part Number and cost | cost |
|------------------------------|------------------------------------|------|
| Disposable Masks | 021-1500 | \$31 |
| Disposable Gloves (S, M, L) | 021-1482, 021-1483, 021-1484 | \$20 |
| Hand disinfection gel (8 oz) | 021-1479 | \$5 |
| Alcohol wipes | 021-1485 | \$9 |
| Safety Glasses | 021-1481 | \$5 |
| D-Dry+ | 098-0511- 00011 | \$79 |

3 ways to get PPE supplies for school:

- Emailing schoolorders@phonak.com
- Calling Customer Care at [1-800-777-7333](tel:1-800-777-7333)
- Visiting the [Phonak Store](#)

Face masks attenuate high frequency speech

- Masks behave as a low-pass filter, attenuating frequencies above 2000 Hz

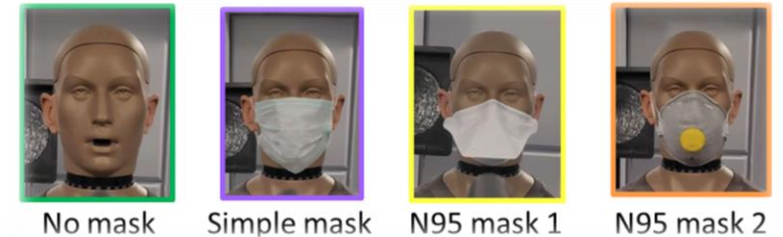
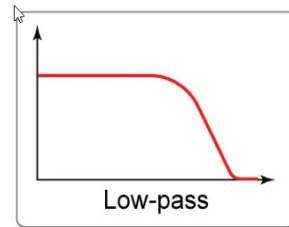


Figure reprinted with permission from Goldin, Weinstein, & Shiman (2020)

- Differences between “no mask” and “mask” conditions ranged from: **3-4 dB SPL** (simple mask) **up to 12 dB SPL** (N95 masks)
- Attenuation of the signal will impact Signal to Noise Ratio (SNR)

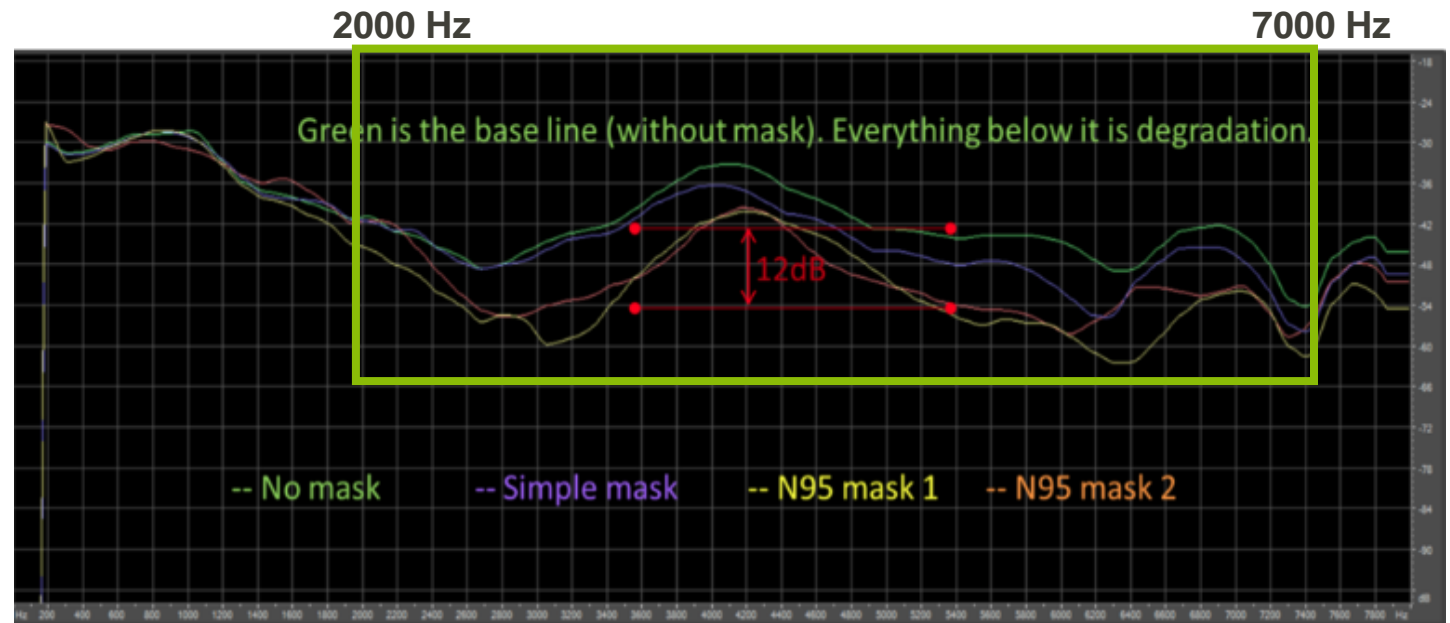


Figure reprinted with permission from Goldin, Weinstein, & Shiman (2020)

Questions that you may be asking yourself

Does my student need more than just a hearing aid?

How can I keep physical distance and still communicate effectively?

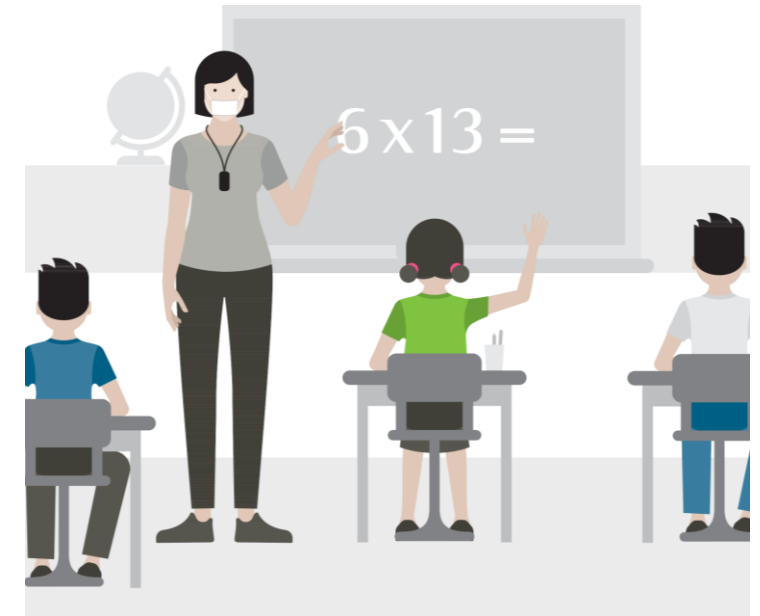
How can communication be improved when I wear a mask?

My student struggles when there are less visual cues, what to do?



Choosing between sound cues and visual cues

- Visual speech cues are highly important, and more so when the acoustic signal is degraded¹
- Transparent masks found to attenuate high-frequency sounds more than non-transparent masks, further degrading speech^{2,3}
- Transparent masks play an important role in maintaining access to the mouth²
 - Aid listeners with lipreading and other nonverbal cues, such as emotion
- Preserve both visual cues and high-frequency sounds, when a talker wears both a clear mask and wireless microphone technology³



¹Stacey, P., Kitterick, P., Morris, S., and Sumner, C. (2016). The contribution of visual information to the perception of speech in noise with and without informative temporal fine structure. *Hearing Research*. 336, 17-28.

²Atcherson, S.R., Finley, E.T., McDowell, B.R., & Watson, C. (2020). More Speech Degradations and Considerations in the Search for Transparent Face Coverings During the COVID-19 Pandemic. *Audiology Today July/August 2020*. Retrieved from <https://www.audiology.org/audiology-today-julyaugust-2020/online-feature-more-speech-degradations-and-considerations-search> on August 21, 2020.

³Corey, R.M., Jones, U., & Singer, A.C. (2020). Acoustic effects of medical, cloth, and transparent masks on speech signals. *Innovation in Augmented Listening Technology*. Retrieved from <https://publish.illinois.edu/augmentedlistening/face-masks/> on August 21, 2020.

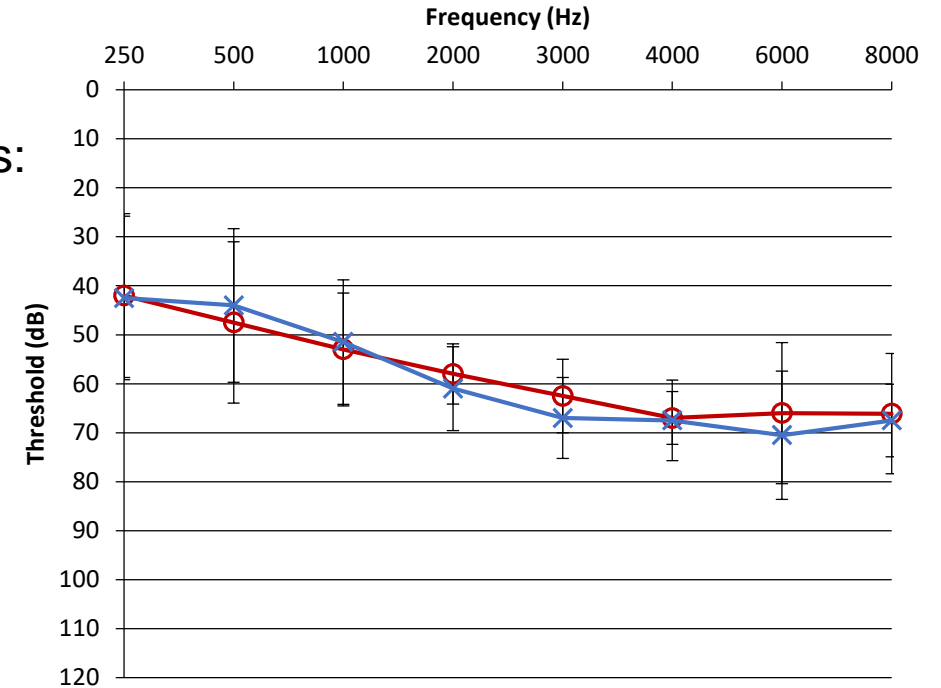
Roger and masks



How does the loss of high frequency information caused by a face mask affect the benefit of using a Roger microphone for individuals with hearing loss?

Study design

- 17 adult participants, average age 69.7 years
- Moderate to severe hearing loss
- Roger™ Touchscreen Mic with Audéo P90 in three conditions:
 - No face mask
 - Cloth mask
 - ClearMask™
- Speech presented via talking KEMAR, placed 6 ft (~2 m) away from participant
- Diffuse cafeteria noise at 70 dBA
 - Determine Signal to Noise Ratio (SNR) at which participants achieved 50% words correct (SNR50)

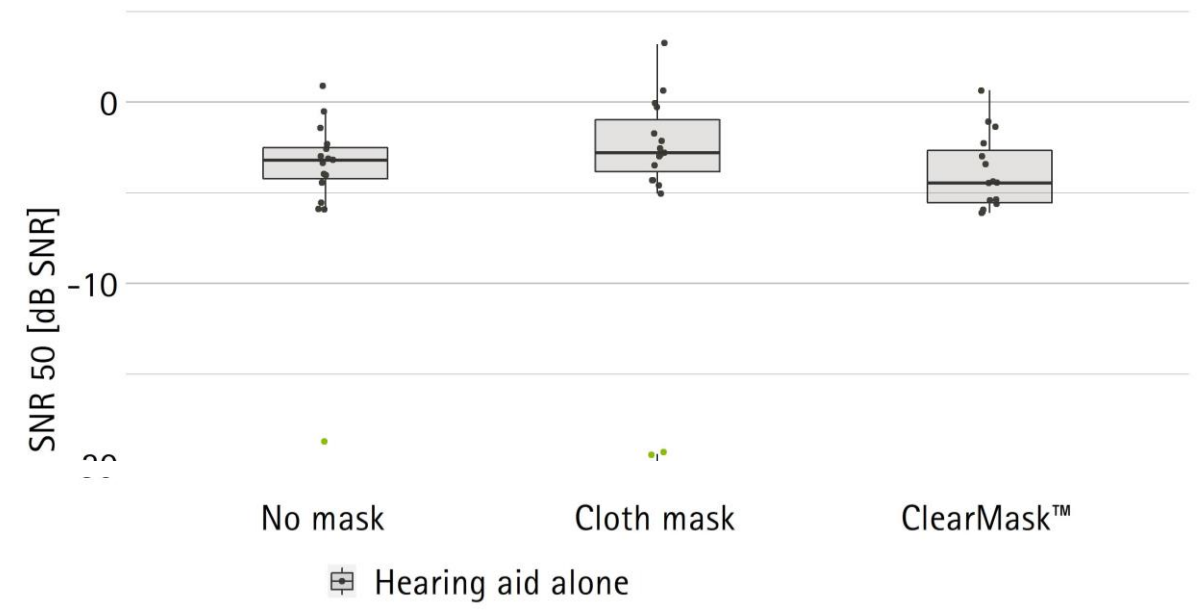


Results:

Hearing aids with masks

Speech perception with hearing aid alone:

- Cloth mask significantly worse than no mask ($p = 0.046$)
- Statistically no difference with ClearMask™ from no mask position

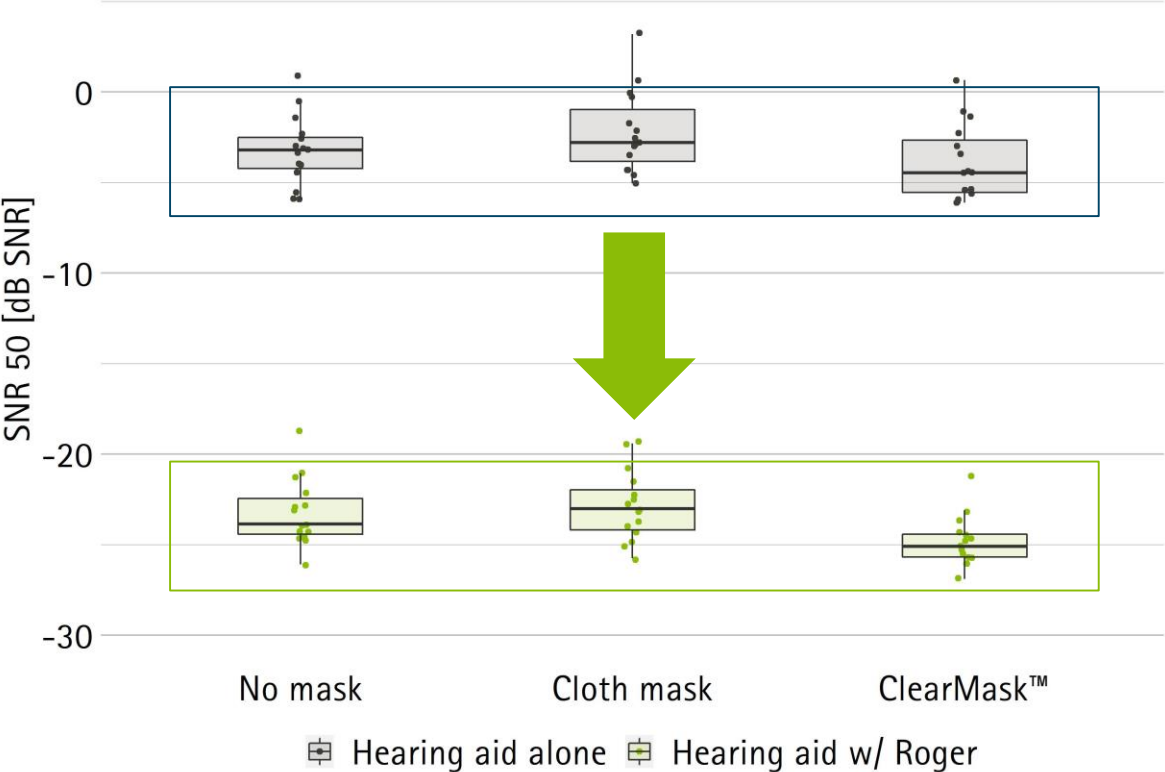


Results:

Masks do not impact the benefit of Roger technology

Speech perception with hearing aid & Roger:

- ~20 dB Signal to Noise Ratio (SNR) benefit
- **Roger benefit is not reduced by use of a face covering**



ClearMask™

- The ClearMask™ used in this study
 - has soft foam seals on the chin and just above the nose.
 - has a clear plastic panel that is open on both sides.
- When measuring Real Ear output of the hearing aids while listening to ISTS through the ClearMask,
 - a slight high frequency attenuation was observed.
 - a boost at approximately 1kHz was observed. The hard panel and open sides of the mask appear to create a resonator that boost 1kHz.
- The open sides and 1 kHz boost may explain
 - the lack of an effect on speech perception without Roger
 - the trend toward increased benefit with Roger.

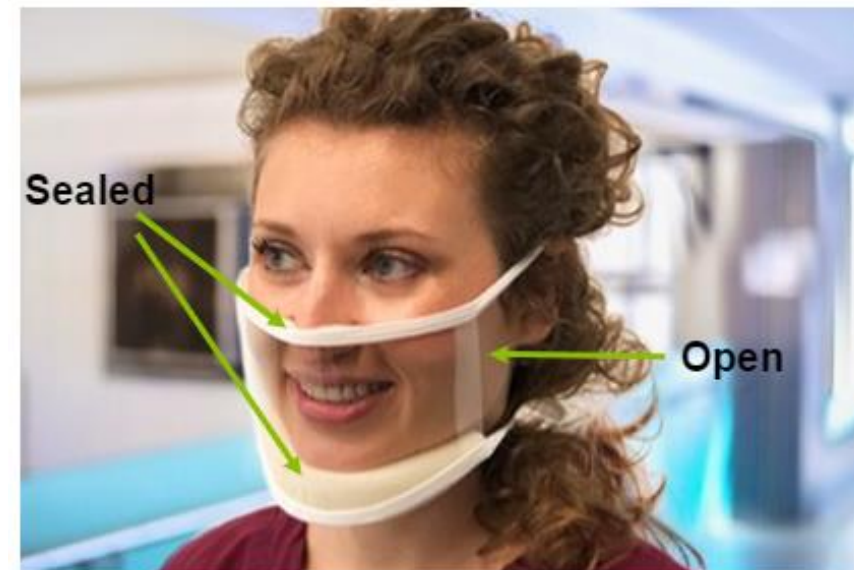
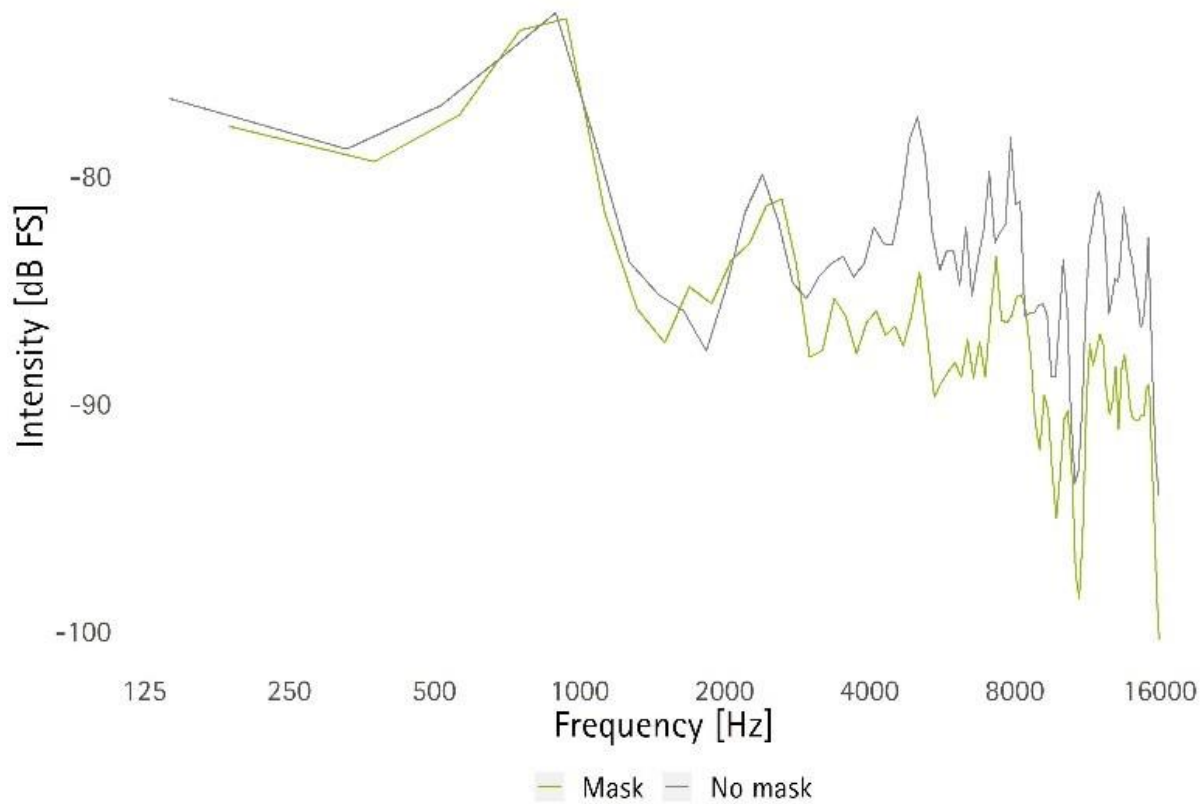


Photo taken from www.theclearmask.com

Do patients need a dedicated mask program?



How can we compensate for the loss of high frequencies due to wearing masks when fine tuning hearing aids?



*The figure above shows high frequency attenuation of a surgical mask, which aligns with previous literature (Weinstein et al. 2020).

Pediatrics and Roger

- Manual programs may not be suitable for children most of the time
- Using Roger will still provide pediatric clients access to critical speech sounds throughout their day.



Summary of COVID-19 considerations

- ✓ In-person learning, virtual learning, and perhaps hybrid learning situations may all be used this school year and all will have unique hearing needs for ALL students
- ✓ Be prepared with knowledge on infection control and sanitization procedures to build confidence with the educators who will need to use Roger equipment to overcome issues with communication due to masks
- ✓ Know what hearing equipment your students will have - both at school and at home - to access the curriculum, ex.
 - Working hearing aids
 - Streaming accessories and/or Roger
 - Cables and splitters, listening tubes, earbuds for the parents, external mic for student
- ✓ Determine how you and the parent can equally contribute to the child's listening success
- ✓ Create their IEP to be sure they have multiple options for learning and engaging with the lessons, educators and peers



Vignettes

Three Case Studies



In-person:
Normal hearing students



In-person:
Student with hearing aids



Virtual:
Student with hearing aids

In the Chat box

What solutions would you start with?





In-person: Normal hearing students

Meet Mrs. Jones – a third grade teacher

Mrs. Jones knows it will be tough to keep the students on task during these times as:

- Kids in masks
- Desks are 6 feet apart - no quad style
- She'll be wearing a mask and maybe even a facial shield
- Front of room, lecture style mode – no moving around the class
- Lots of content has been put into multimedia presentations for ease of carry over to remote learning

In-person: Mrs. Jones' concerns



Hearing and Masks:

Will students be able to hear her and each other well enough?



Helping Eric Hear:

She will have Eric, a student with hearing loss, in her class this year: How can she be sure he has everything he needs to hear her and the others?

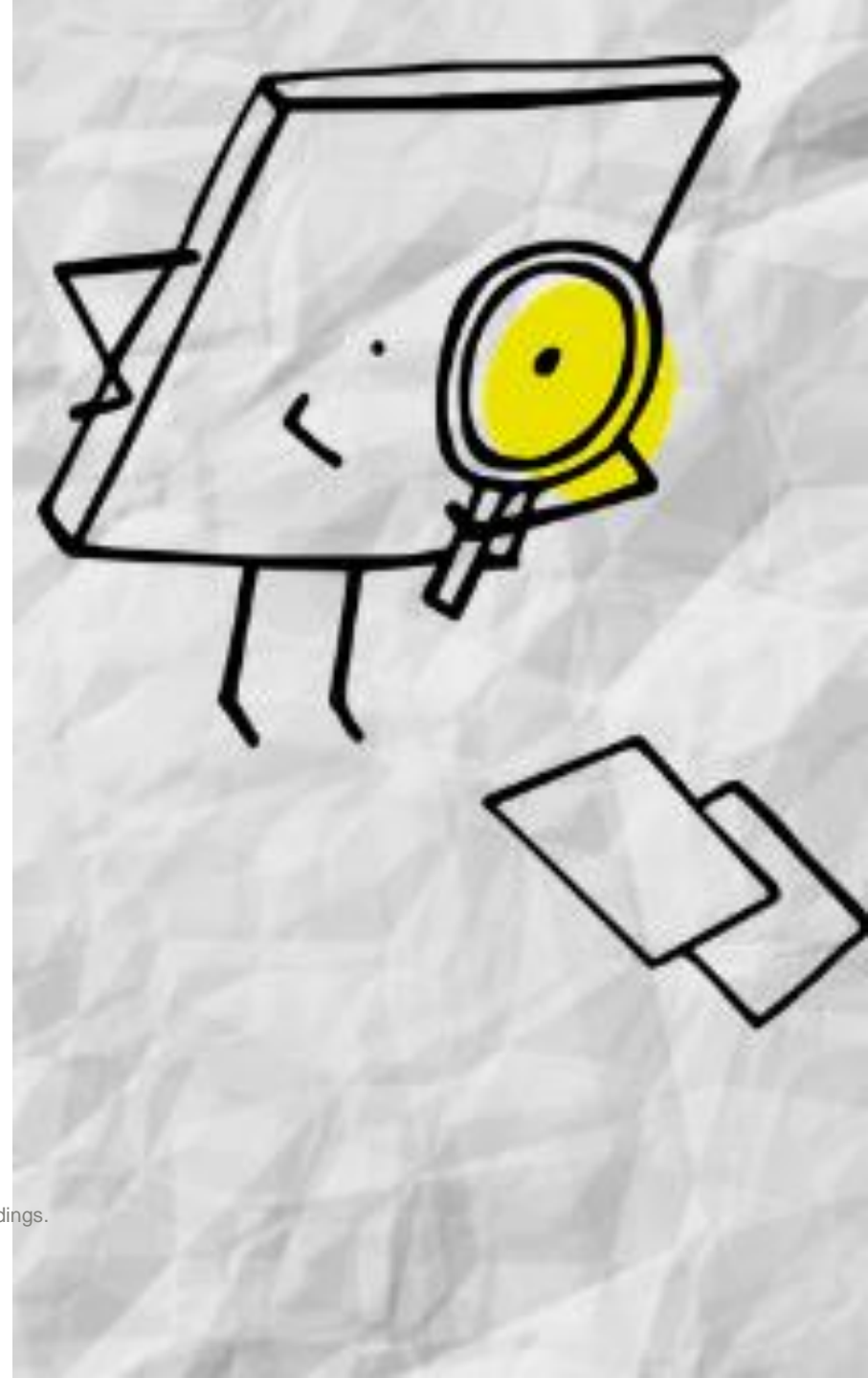


Vocal Strain:

Will she lose her voice as she is prone to illness as she tries to be heard while socially distancing and wearing a mask?

The research supports her concerns:

1. A third graders needs a signal to noise ratio of + 12.5 to achieve 95% speech intelligibility in noisy conditions
2. Students with hearing loss struggle more than their typically hearing peers in noise and at a distance
3. Teachers are at risk for vocal disorders



J S Bradley , H Sato J Acoust Soc Am 2008 Apr; 123 (4):2078-86 doi: 10.1121/1.2839285 The intelligibility of speech in elementary school classrooms

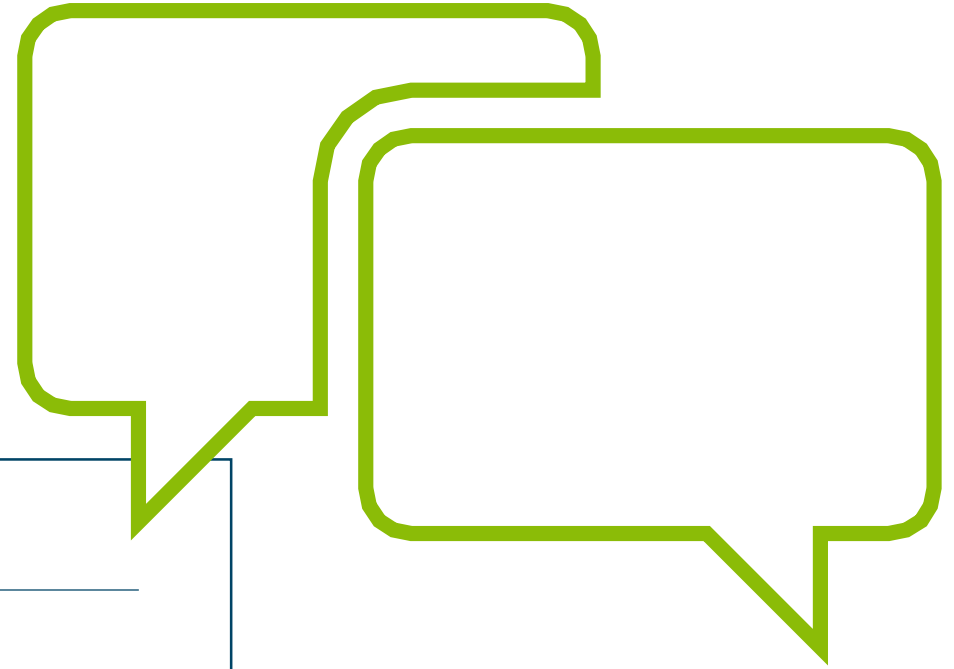
Appleton-Huber, J., Bacic, L., & Venkatesan, A. (2018). Phonak Compendium. A review of soundfield amplification systems. Retrieved from <https://www.phonakpro.com>, accessed August 19, 2019.

Keidar, A., & Mathers-Schmidt, B. (1993). *International Journal of Language & Communication Disorders*, 28(2), 177–185. Vocal attrition in teachers: survey findings. Retrieved from <https://doi.org/10.3109/13682829309041465> , accessed August 27, 2020.

Sliwiska-Kowalska, M., Niebudek-Bogusz, E., Fiszer, M., Los-Spychalska, T., Kotylo, P., Szurowska-Przygocka, B., & Modrzewska, M. (2006). *Folia Phoniatrica et Logopaedica*, 58(2), 85–101. The Prevalence and Risk Factors for Occupational Voice Disorders in Teachers. Retrieved from <https://doi.org/10.1159/000089610>, accessed August 27, 2020

In the Chat box

What solutions would you start with?



Consider Mrs. Jones' concerns:



Students will have increased difficulty hearing teacher



Students will have increased difficulty hearing each other



Vocal strain and increased communication stress can affect everyone

Roger to the rescue!



Improve the signal to noise ratio so everyone can hear
Add a Roger Soundfield system. It's adaptive and can handle the changing noise levels of the classroom (Digimaster 5000)

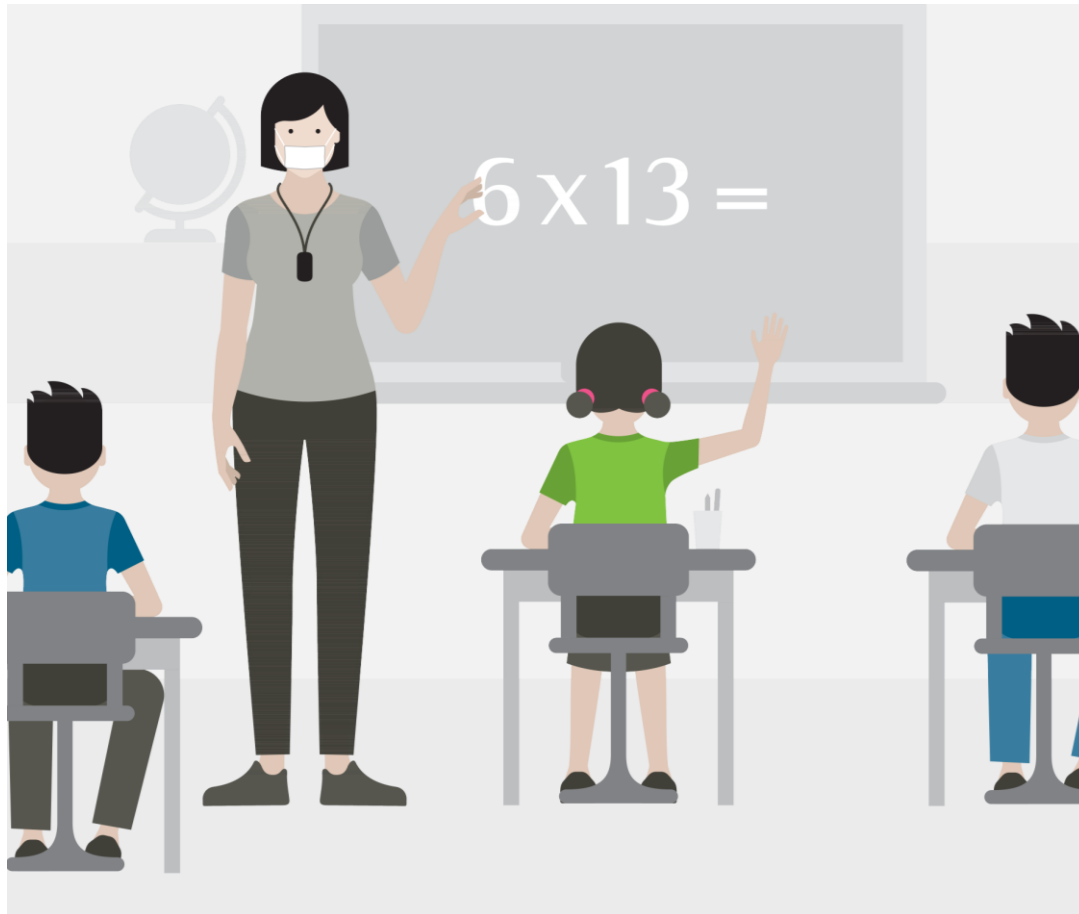


Use an inexpensive yet acoustically sophisticated mic
Use the Roger Touchscreen Soundfield mic



Help kids understand each other during discussion
Add Roger Pass-around Microphones

Classroom amplification systems



- ✓ Improves speech understanding up to 50% for normal hearing children
- ✓ Helps children pay attention and improves in-class discipline
- ✓ Improves academic success
- ✓ Reduces vocal strain
- ✓ Reduced teacher absenteeism due to voice loss and reduced replacement-teacher costs





In-person: Student with hearing aids

Meet Eric – 3rd Grader

- Student in Mrs. Jones' class
- Wears hearing aids and uses Roger Touchscreen Mic
- Excited to see his friends at school
- Not sure what masks and other changes mean for him



In-person:
Student with hearing aids



Existing Solution:
Sky Marvel and
Roger Touchscreen Mic



Mrs. Jones' New Solution:
Add Pass-around Mic(s)

+



Mrs. Jones' New Solution:
Digimaster 5000

In the Chat box

What other solutions would benefit Eric?



Consider Eric's class set up:



Teacher and kids in masks



Lots of content in multimedia presentations for ease of carry over to remote learning



Lecture style teaching – no moving around the class

Eric Solutions: Teacher and peers in masks



Maybe a clear mask so Eric sees speech cues?



CART or automated captions

| | CART and TypeWell/C-Print | Live Transcribe | Slides | Meet | Live Caption | Docs | Translate | Translator | Presentation Translator | Skype Translator | Teams | Office products | webcaptioner.com | Otter.ai | Live Transcribe | Ava | Interact-Stream | | |
|---|---------------------------|---|--------|------|----------------------|------|-----------|---|-------------------------|------------------|-------|--------------------------|------------------|-------------|-----------------|-----|-----------------|---|---|
| Computer Platform | | | | | | | | | | | | | | | | | | | |
| Mac | * | | | | | | | | | | | Use "Enhanced Dictation" | Chrome only | Chrome only | | | Top tiers | * | |
| PC | * | | | | | | | | | | | Use "Dictate" | Chrome only | Chrome only | | | Top tiers | * | |
| Chromebook | * | with Android app on device 2019 and newer | * | * | | * | | with Android app on device 2019 and newer | | | | | | | | | | * | * |
| Mobile Platform (cellphones and tablets) | | | | | | | | | | | | | | | | | | | |
| iOS | * | | | | | | | | | | | | | | | | | | |
| Android | * | | | | Only on Pixel phones | | | | | | | | | | | | | | |
| Situation | | | | | | | | | | | | | | | | | | | |
| Classroom | * | * | * | * | | | | | | | | | | | | | | | |
| One-on-one | * | * | * | * | | | | | | | | | | | | | | | |
| Small Group | * | * | * | * | | | | | | | | | | | | | | | |
| Large Group | * | * | * | * | | | | | | | | | | | | | | | |
| Remote input options | | | | | | | | | | | | | | | | | | | |
| Speak into mobile device (input) and connect with another mobile device (output) | | | | | | | | | | | | | | | | | | | |
| Speak into Remote Microphone system (input) and connect with mobile device (output) | * | * | * | * | | | | | | | | | | | | | | | |
| HIPAA compliant | | | | | | | | | | | | | | | | | | | |
| Yes | * | | | | | | | | | | | | | | | | | | |
| No | | | | | | | | | | | | | | | | | | | |
| Language Translation | | | | | | | | | | | | | | | | | | | |
| Yes | * | | | | | | | | | | | | | | | | | | |
| No | | | | | | | | | | | | | | | | | | | |

<http://bit.ly/SpeechToTextOptions>

Created by Tina Childress, Au.D.

rev 08/20

Eric Solutions, cont: Lots of multimedia content



Need to improve the clarity of multimedia
Include Roger Multimedia Hub

Multimedia Hubs can connect to

- Laptops
- Whiteboards
- Tablets, TVs, DVD players
- and more



Benefits include: The teacher continues to wear the Touchscreen during lessons, so both the AV signal and the lesson can be clearly understood thanks to signal mixing. Also, the Hub is less expensive than the full teacher mic.

For in classroom set ups, you may need a splitter to take the audio to both the Multimedia Hub and also the external speakers.

Especially great if the class has a soundfield system in use. Improves the clarity of multimedia for all.



Other solutions for Eric: Sky Marvel is a rechargeable hearing aid

| Usage in hours | Sky M P-R (Li-ion) on avg |
|--------------------------------|---------------------------|
| No streaming | 22.5 hours |
| 5 hours of Roger/TV streaming | 19.9 hours |
| 10 hours of Roger/TV streaming | 17.5 hours |



How long does it take to charge?

| Charge duration | How much use time |
|-------------------|-------------------|
| 15 minute charge | 3 hours |
| 30 minute charge | 6 hours |
| 60 minute charge | 12 hours |
| 120 minute charge | 24 hours |
| 180 minute charge | Full charge |

Expected Battery Life = 6+ years (1500 charging cycles)

Phonak Charger BTE RIC
Part Number 075-3016-11

Easy to use

Automatically turns on
out of the charger

Super quick charging

3 color LED

Other solutions for Eric: Roger / FM receiver checker and listening adapters



Universal Receiver Checker

| | | | |
|--|---|----------|------|
| MLx Audio Checker | 1 | 052-0289 | \$85 |
| Roger 14 adapter | 1 | 052-3434 | \$75 |
| Roger 14 protective case | 2 | 055-3014 | \$5 |
| Roger 17 adapter | 1 | 052-3266 | \$60 |
| Roger 18 adapter | 1 | 055-3003 | \$50 |
| Roger 18 v2 adapter for FW 1.9 or higher | 1 | 055-3024 | \$50 |
| Roger 19 adapter | 1 | 055-3006 | \$50 |
| Roger 20 adapter | 1 | 055-3008 | \$50 |
| Roger 21 adapter | 1 | 055-3020 | \$50 |

Accessories have a 90-day warranty

Additional headphones are \$26
Part Number 005-3143-1

Other solutions for Eric: Carrying case



Phonak Travel Case

Part Number: 017-0946

Price \$19.99





Virtual: Student with hearing aids

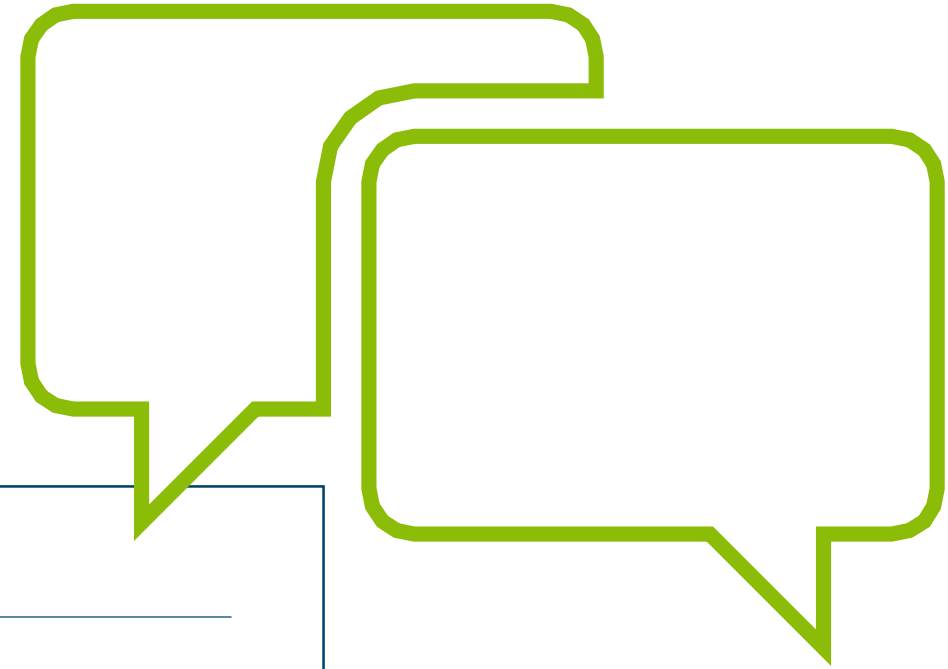
Meet Jana – Sophomore

- Wears Sky Marvel aids
- Moderate hearing loss
- Streams Bluetooth at home
- Uses Roger at school and occasionally the TV Connector



In the Chat box

What do we need to consider to meet Jana's needs for successful virtual learning?



Consider Jana's class set up:



Livestreamed lessons



Multimedia supporting material



Group discussion

Virtual: Concerns for learning from home



Hearing teachers
and peers



Be heard by
teachers and peers



Ensure clear
teacher speech



Hear parental
support

Jana Solutions: Hearing teachers and peers from the laptop



Bluetooth Connection

- Included in student's hearing aids – no additional costs
- Sky Marvel offers 1 active Bluetooth pairing – may be a hassle for student if already paired to personal cell phone or tablet
- More intensive use of student's battery life



TV Connector (Airstream) Connection

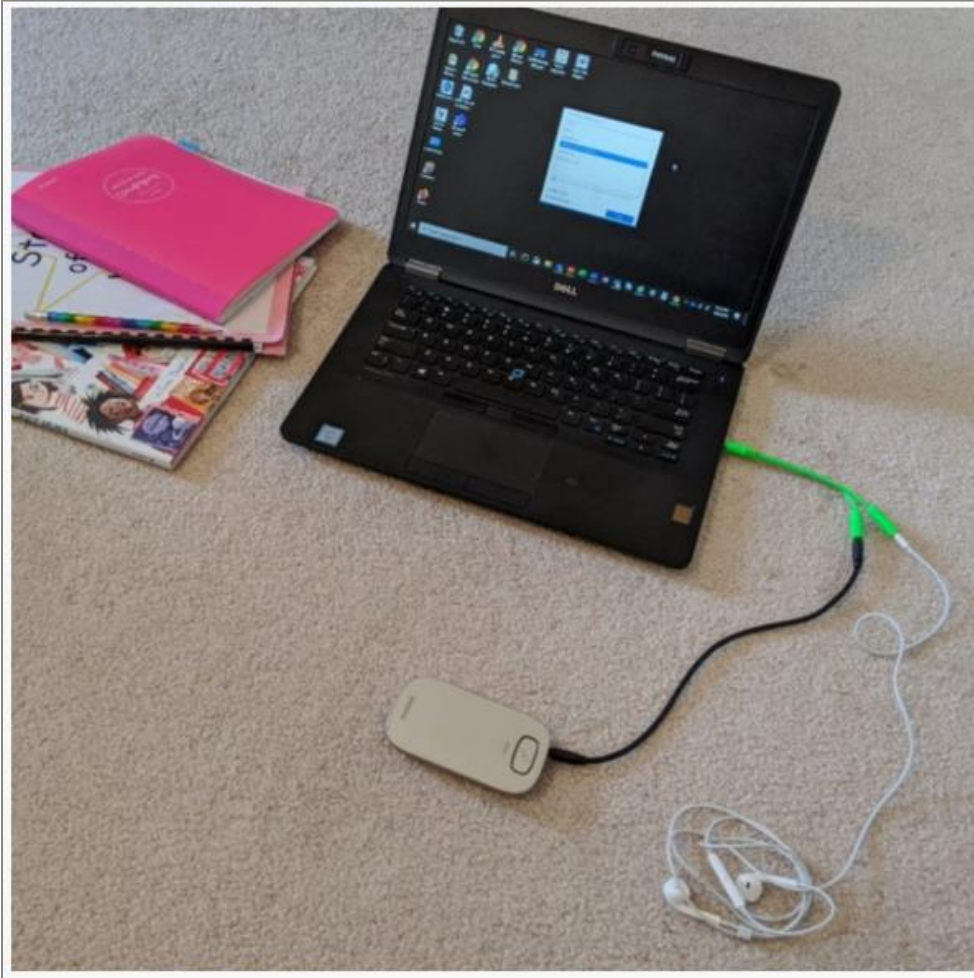
- Low cost media streaming solution for Marvel hearing aids
- Allows for great quality audio output to Marvel – but student may experience a delay in received audio when switching from talking to listening
- Less intensive on battery than BT streaming



Roger Connection

- Future proof investment for school – works with hearing aids and cochlear implants
- Allows for signal mixing
- Has long range – helpful if student needs to run out of the room for a brief moment, stay connected to the lesson
- Less intensive on battery than BT streaming

Jana Solutions: Hearing teachers and peers from the laptop



Has Roger Receivers installed into her Marvel hearing aids

Uses this set up at school for state testing; already comfortable with the solution

Easily plug in splitter so parents can do listening checks

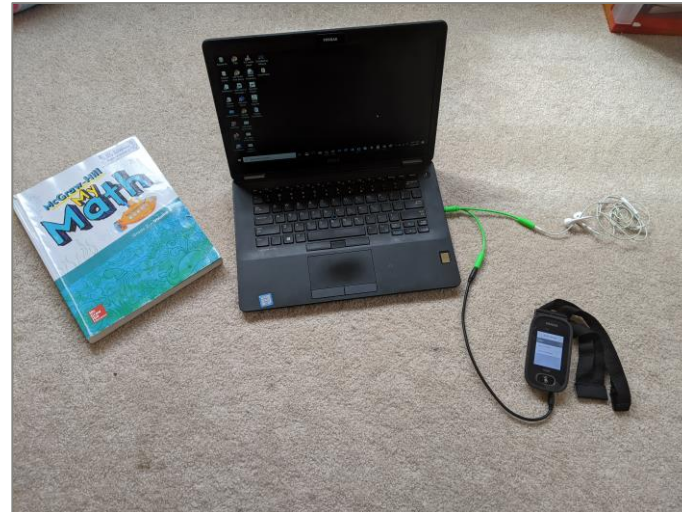
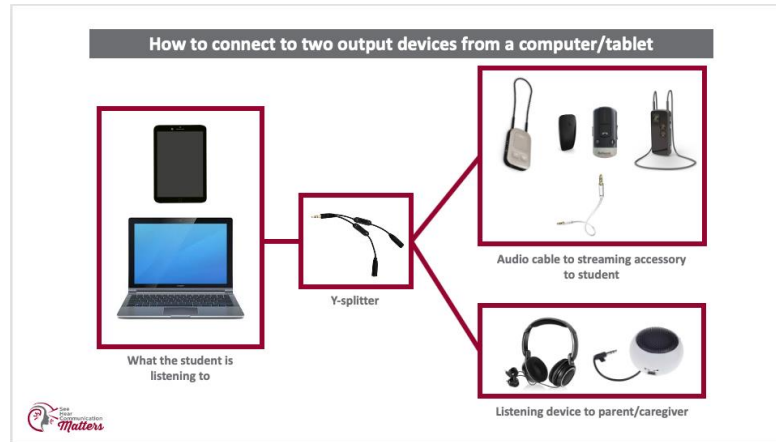
Phonak Audio Splitter

splits the output in 3.5 mm format, for DM and headphone connectivity, for example

Part Number: 038-3107



Jana Solutions, How to connect PC devices



Possible solution for PC Users

Bluetooth Direct Hearing Aids, such as

- Phonak Marvel
- Phonak Audio Streaming-Device
- Other manufacturer solutions

Steps

Connect your Phonak Bluetooth hearing aid or Bluetooth accessory to your computer.

- 1) Go to Settings > Bluetooth & Other devices.
- 2) Be sure your PC's Bluetooth feature is on. Turn off the hearing aids then click Add Bluetooth or other device.



- 3) Power on the Marvel hearing aids. The hearing aid name should show up in the list of devices to add.

Jana Solutions, How to connect Mac devices



Use Case

Your Deaf or Hard of Hearing (DHH) child is at home doing their lessons for online/virtual learning. They are able to connect to the computer directly with their Bluetooth-enabled hearing aids or with their streaming accessory but then you realize when they do that, you can't hear over the computer speakers anymore! What are your options? You want to make sure they can hear optimally but you also want to monitor what they are hearing so you can ensure comprehension or at least let their teachers know if they appeared to be having hearing difficulty.

Solution for Mac users

BLUETOOTH DIRECT HEARING AIDS SUCH AS

- [Phonak Marvel](#)
- [Advanced Bionics CI 90 with CI Connect](#)

OR A WIRELESS, STREAMING ACCESSORY SUCH AS

- [Phonak](#) (ComPilot, TV Connector)
- [Oricon](#) (ConnectClip [used with Bluetooth dongle and [Oricon Onn](#) or [Oricon Onn Play](#)], Connect Line, Streamer Pro)
- [Cochlear](#) (MiniMic 2, MiniMic 2+, Phone Clip)
- [ReSound](#) (MiniMic, MultiMic)
- [MFD-EL](#) (AudioLink)

Steps

The basis for this solution comes [this post](#). Many thanks to Dr. [Tilak Ratnanather](#) and [Rachit Kumar](#) for pointing me in the right direction with their thoughts on a possible solution!!!

If you are not comfortable with changing settings on your computer, please be sure to consult with someone who can follow these steps.

6. Make sure that "Built-in Output" is checked (sometimes it becomes unchecked).



7. Optional but you can go back to the left-hand side and change the name from "Multi-Output Device" to whatever you want. Click on the box and white, editable box will appear. If you rename, I would suggest one that uses the "(name of your child's device) + speakers" so it's clear which output you're using.



Jana Solutions: Be heard by teachers and peers

Jana will need to engage with her teacher and peers via the computer.

If an external mic is needed, a USB sound card adapter is the perfect solution for most laptops. The external mic is plugged into the USB sound card leaving the audio port for the Multimedia Hub.

Computer internal microphone
One choice would be to use the computer's built-in microphone, if it stays active.



USB External Stereo Sound Adapter
offers input and output, in USB format

Available online



Phoinikas External Sound Card offers six ports including two 3.5 mm audio outputs and one input for the students to hear; plus 3 USB ports.

Available online



Jana Solutions: Ensure clear speech from the teacher

A lapel level mic should be used to improve the clarity of signal.

Considerations:

- Use either a Bluetooth mic or a hard-wired solution with a long cable is best (improves transmission signal)
- If the educator anticipates needing to walk to the board / away from computer, then a wireless solution is important.
- Work with your IT Department to acquire.

Logitech USB H390- headset provides clear output for the teacher to hear and reliable input for the students to hear.

Part Number:
099-5045



Bluetooth mics – A variety of Bluetooth mics are available from online retailers that work with computers, tablets, smart phones and more.

Online Retailer

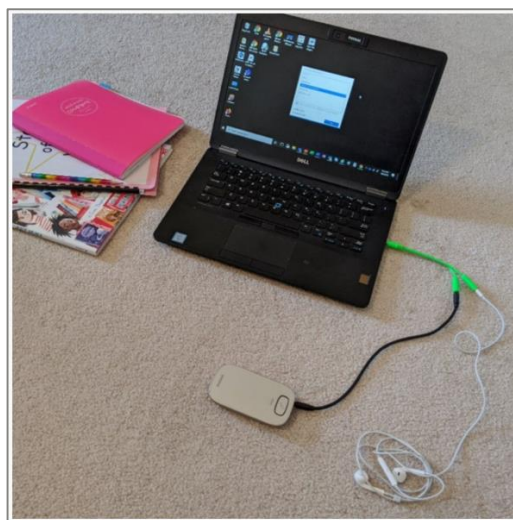
Hear parental support

Jana may need help from her parents as she does virtual schoolwork.

- Home acoustic environments can be loud
- Parents may be speaking from a distance

Adding the Roger Touchscreen for the parent ensures Jana can hear their support easily and with a beneficial signal to noise ratio.

Jana's complete Roger system





Summary of Solutions

Roger offers a variety of solutions to support diverse teaching methodologies and needs

Roger Touchscreen provides versatility with lanyard mode for lectures and small group mode for group discussions and activities.

Part Number:
052-3297



Roger Pass-around Mic ensures all students can be involved in the discussions, learn incidentally, and stay engaged.

Part Number:
052-3261

Roger Multimedia Hub gives easy access to audio-visual technologies used by the class or by an individual student.

Part Number:
052-3299

Roger DigiMaster 5000 / 7000s improves acoustic environments by providing soundfield amplification of speech sounds.

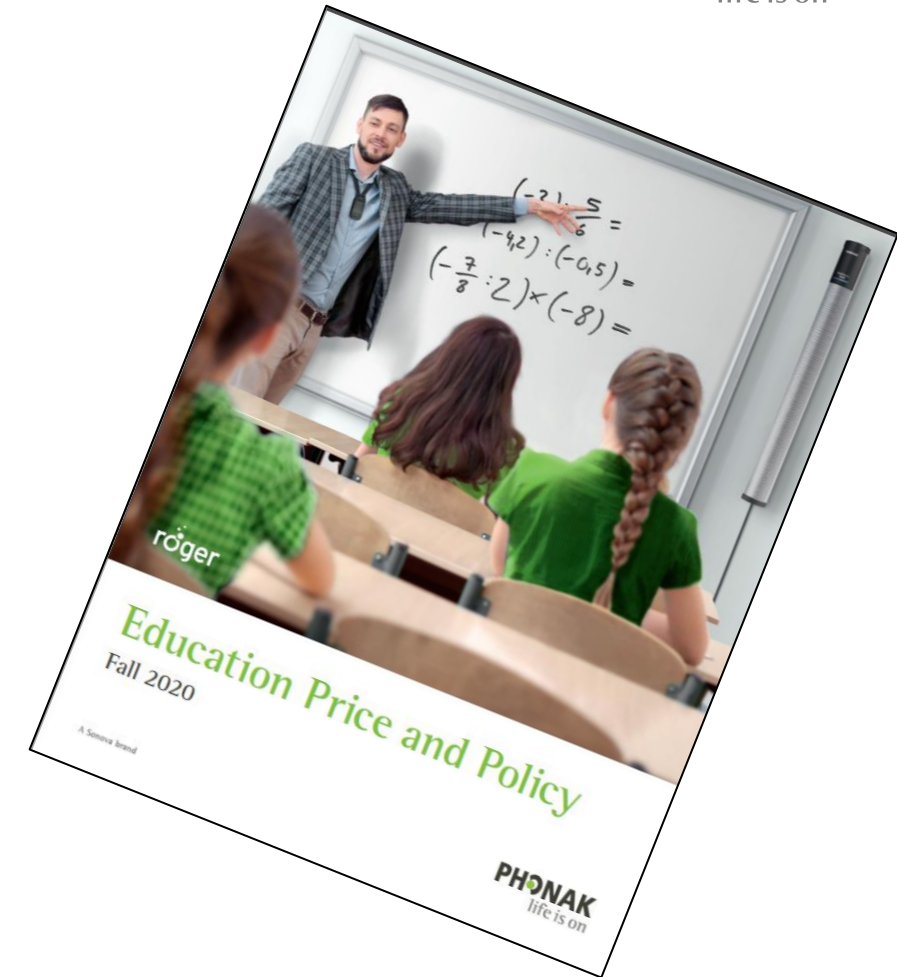
Part Numbers:
052-0505 (5000)
052-0506 (7000)

Resources

Warranty

Original Manufacturer Warranty for Roger

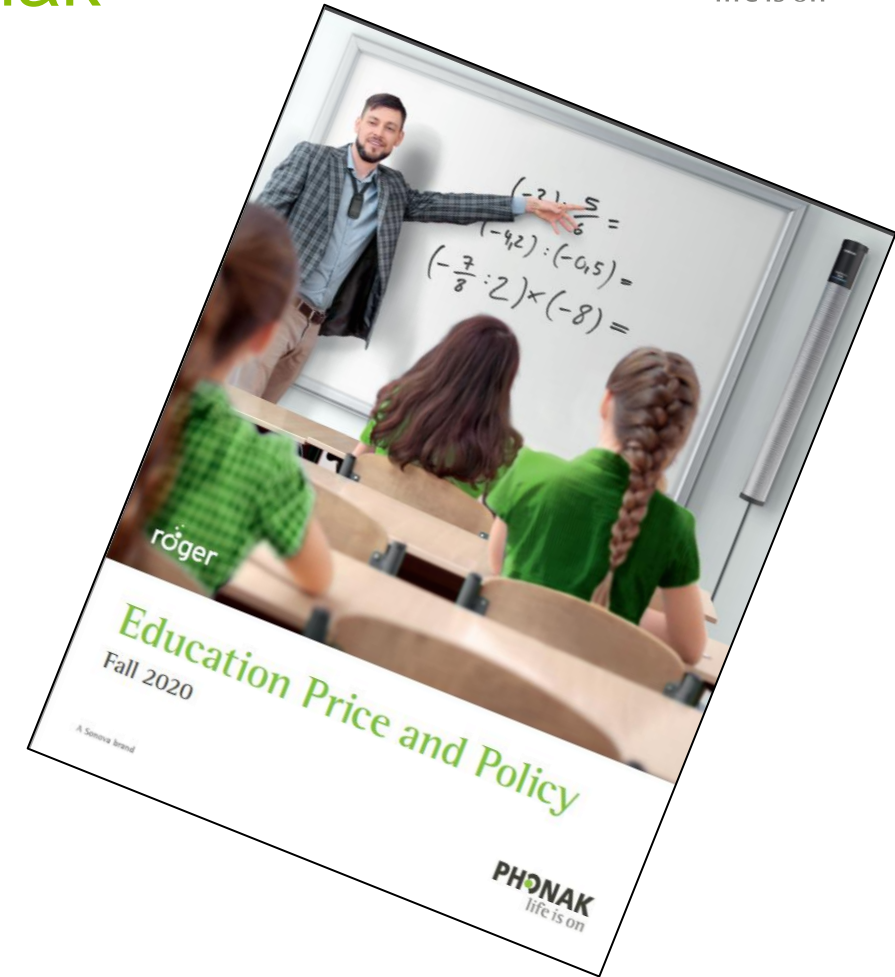
- All serialized Roger devices are covered by a 2-year warranty
- One-time Courtesy Loss Replacement (deductible may apply)
- Roger X devices owned by schools and in-warranty have a 2 time Courtesy Loss Replacement dependent on serial number.
(Serial numbers starting with 1744xxxxx and Champagne in color)
- Non-serialized accessories are covered for 90 days (ex. Audioshoes)
- Serialized accessories carry a 12-month warranty (ex. ComPilot II)



Please see our
Education Price and Policy Guide
for more details.

Extended Protection Plan (EPP) from Phonak

- Extended new product warranties can be ordered at time of purchase: Up to two additional years can be purchased at \$129 per year for Roger.
- For hearing aids, up to a four year warranty can be purchased at \$129 per additional year.
- If the EPP is not added at time of purchase, a Comprehensive Service Plan (CSP) can be purchased when original warranty is (or has) expired.



Please see our
Education Price and Policy Guide
for more details.

Comprehensive Service Plan (CSP)

CSPs for school inventories provide **savings** for your program and **convenience** for rapid repair returns.

- Unique way to extend warranty after initial purchase
- Available for some units up to 7 years of age
- Discounted pricing from typical repair fees
- Pricing is determined by the age and model of the unit
- CSP lists are generated every Spring and sent to accounts



Please contact us if you have not received your CSP information!

Phonak solutions for kids of all ages

Phonakpro.com



Sky M-M
Pediatric

Sky M-PR
Pediatric

Sky M-SP
Pediatric



Naída M-SP
BTE

Audéo M-RT
RIC

Bolero M-PR
BTE



Phonak
RemoteControl



Phonak
PartnerMic™



Phonak
TV Connector™



Touchscreen Mic
Multimedia Hub
Pass-around Mics
Roger Charging Rack



Bluetooth™
Connectivity



Roger
Select



Roger Table
Mic II

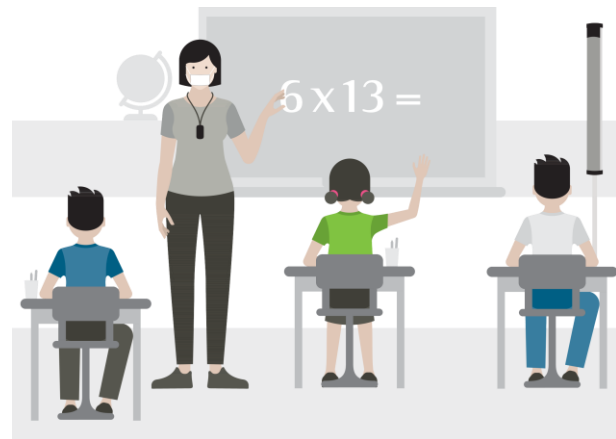


Roger
Pen

Classroom solutions easy to access

www.eschooldesk.com

www.phonakpro.com




Pediatric Solutions

Overview Classroom UHL Fitting Advisory Board Literature

Active participation in the modern classroom

It's important for all children to hear well in school. In order to keep up with fast-changing learning environments, the Roger for Education portfolio offers various intuitive and easy-to-use solutions to suit every student in every lesson.

- The Roger™ Touchscreen Mic always chooses the right microphone mode based on the orientation of the device. You don't have to manually adjust anything – everything is automatically done for you!
- The Roger microphones and media transmitter feature an indicator light which is clearly visible and easily understood by both students and teachers.
- In a recent study, 100% of children preferred listening to their peers using Small Group mode during classroom activities.¹



Learning made easier with Roger

The Roger for Education portfolio includes carefully designed products to suit every student and every situation. From the Roger Touchscreen Mic and the Roger Pass-around, to a variety of Roger receivers, soundfield speaker systems and other classroom devices, complexity is no more an issue and children can hear it all!



Roger™ Touchscreen Mic

A new, user-friendly interface for use in the classroom. With an automatic microphone function, it switches from an individual talker to a small group interaction mode.

[Learn More >](#)



Roger SoundField

Roger SoundField, together with Roger SF Touchscreen Mic, amplify the teacher's voice to the entire class and ensure all children and students can enjoy Roger-quality speech understanding.

[Learn More >](#)



Roger™ Focus

A discreet behind-the-ear receiver for children with normal hearing, attention or auditory processing issues, brings speech directly into a child's ears for better understanding.

[Learn More >](#)

Additional Resources for Schools

Child hearing assessment tool kit

Evaluate a child's individual listening behaviors, difficulties, and use of assistive technology. >

Reference Guides for teachers

Designed to make your working life easier by answering the product questions we're asked the most. >

How to use Roger

Whatever Roger product you use, find video guides that will help you get the most from this technology. >

Studies and reports

Evidence on how wireless microphone technologies such as Roger can benefit students with hearing loss. >

References

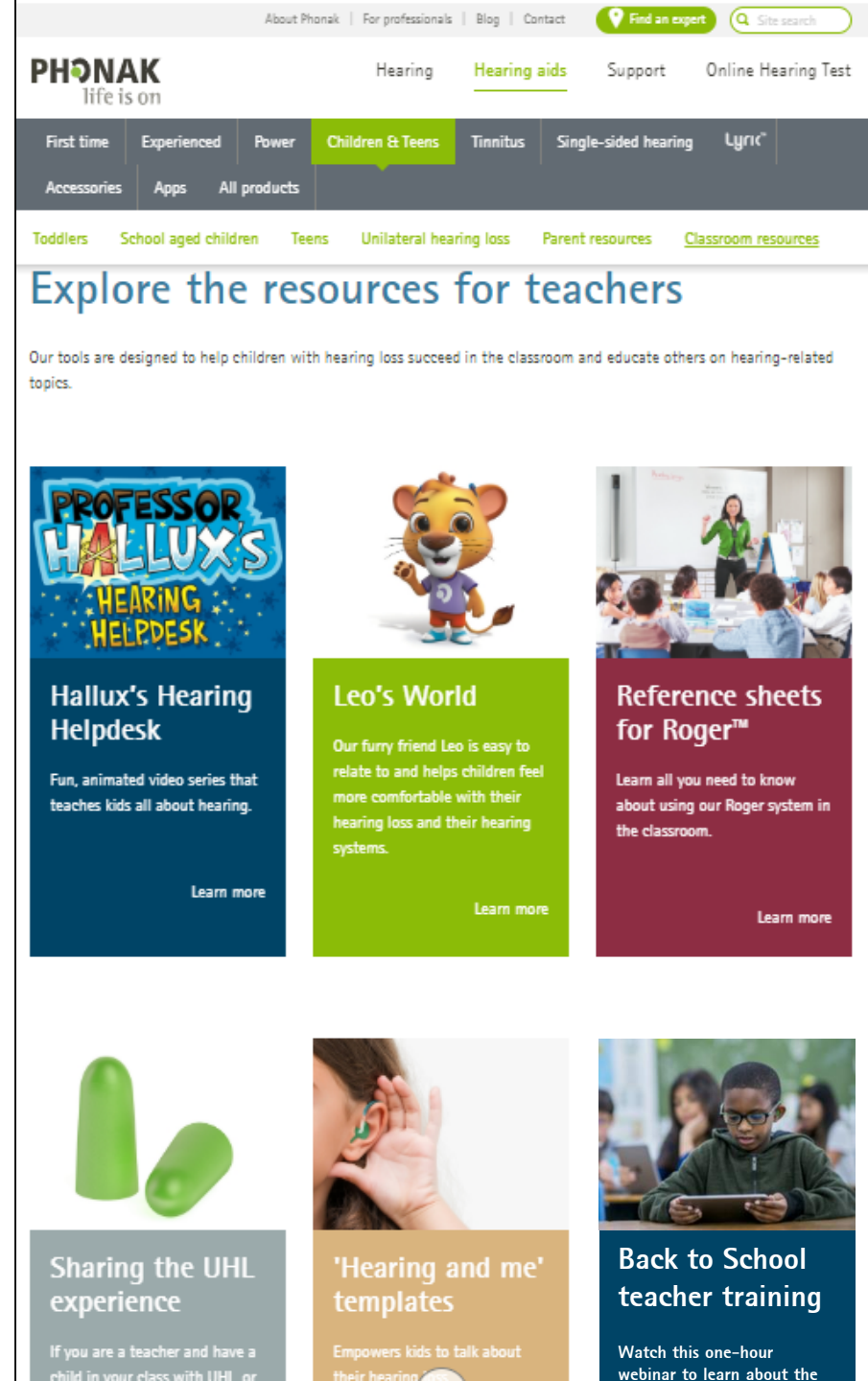
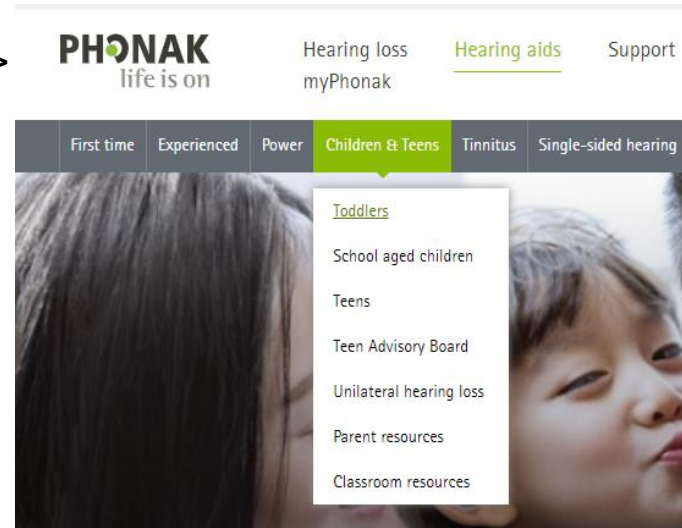
Teacher classroom resources

The *Classroom Resources* Section on Phonak.com has

- Videos
- Coloring sheets
- **Reference and instructional guides**
- Classroom activities
- Empowerment tools for students



Phonak.com >> Hearing Aids >>
Children & Teens >>
Classroom Resources



Hearing and Me

- A wonderful, self-advocacy and classroom resource
- Empower kids of different ages to talk about their hearing loss



Contact information Reminder



Important Phone Numbers

888-777-7316

School Desk

option 1 Customer Service

Audiology Tech Support

option 2

800-679-4871

Consumer questions

on Bluetooth and Roger connectivity



Provides faster service and better order tracking

- schoolquotes@phonak.com – email exclusively for quote requests
- schoolorders@phonak.com – email exclusively for orders
- schoolhelpdesk@phonak.com – all other questions and needs

Wrap Up

Look for our follow up email

- Resources discussed
- CEU Certificate
- Survey

Collaborate with:

- Teachers, HCPs, local chapters of EAA, Hands and Voices, AG Bell, Teacher Tools Take Out

Ask us for help!



<https://www.surveymonkey.com/r/HQNPZXT>



A Sound Foundation Through Early Amplification 2021

8th International Pediatric Audiology Conference
March 28 — 31, 2021 | San Diego



Join us
in San Diego
or online

Register at Phonakpro.com
Trainings and Events tab/Phonak Events

Questions?

Together,
we change lives