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District Name

Assistive Technology Team:

Assistive Technology Newsletter

Tech Talk

Helping children learn to their full potential

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AT for Blind/Visually Impaired

Blind/Visual Impairment Definition and Qualification

Blind/Visually impaired services in Minnesota Schools are provided to students who are Blind, have Low Vision or Cortical Vision Impairments. According to Minnesota Rules 3525.1345, "Visually Impaired means a medically verified visual impairment accompanied by limitations in sight that interfere with acquiring information or interaction with the environment to the extent that special education instruction and related services may be needed." To qualify for services, students must have a visual acuity of 20/60 or less in the better eye with the best conventional corrections, a visual field of 20 degrees or less, or a congenital or degenerative condition. In the United States, legal blindness refers to a medically diagnosed central visual acuity of 20/200 or less in the better eye with the best possible correction, and/or a visual field of 20 degrees or less. According to the American Foundation for the Blind, low vision refers to "a person who has measurable vision, but has difficulty accomplishing or cannot accomplish visual tasks even with prescribed corrective lenses but who can enhance his or her ability to accomplish these tasks with the use of compensatory visual strategies, low vision devices, and environmental modifications." Cortical visual impairment (CVI) is a form of visual impairment that is caused by a neurological problem affecting the visual part of the brain.

- Functional use of assistive technology may require a combination of large print, speech or braille.
- The goal for use of assistive supports for the Blind/visually Impaired is to maximize the functional print and/or braille reading, writing and/or communication rate.
- Reading paper materials (print or braille) may be different from reading electronically (using a computer monitor, CCTV, speech output, audio files, or refreshable braille).
- Recreation, leisure, entertainment and other socialization activities are valid uses of assistive technology.

AT Supports for the Blind/Visually Impaired Focus on Use of Effective Listening Skills

All students with visual impairments depend on their ability to listen, and may need help developing skills to help them listen more efficiently. Assistive Technology for individuals who are Blind/Visually Impaired may include illumination, screen readers, screen magnification, refreshable braille displays, braille translation software, braille writing equipment, video magnifiers, distance viewers, portable notetakers, braille embossers, scanners, adaptive keyboards, or augmentative communication devices. televised announcements, closed captioning, sound field amplification systems, and interactive whiteboards are assistive solutions.

To learn more about how your child might benefit from AAC, contact your child's IEP team leader

Assistive Technology (AT) Support Guidelines for the Blind/Visually Impaired

According to the Texas School for the Blind and Visually Impaired:

- Technology needs are unique.

Using AT at Home

Braille Labels

Use in your home to encourage functions and locations of items.

Tactile Books

Use tactile books to foster development of literacy skills with a child who is visually impaired.

High Contrast Symbols

Use instead of standard symbols; they are easier to see for students



Parent Question

Is my child with a visual impairment too young to use assistive technology? What age should children start to be exposed to enlargements/braille?

Oftentimes, parents believe that children should wait to be exposed to braille and enlargements until they are ready to read. Tactile books can be used to encourage touch. Tactile books are adapted books that have a tactile aspect so that reading the books also involves touching them. They will engage blind/low vision students more in the reading experience. It is important, that children who are blind/low vision be exposed to both braille and tactile books as toddlers so that they can begin to gather information from their environment. Exposure to braille will help them to gain valuable information by touch and increase their knowledge of textures. Parents can support children by getting a braille label maker and making labels for objects in the child's environment. Clear adhesive brailleable sheets can be used to make labels that are placed over print in books. To prepare your child for reading, talk to your child about 'reading with your fingers'. Expose children who have visual impairments to books!

Technology Accessibility for the Blind/Visually Impaired

iPad

<https://www.apple.com/accessibility/ipad/vision/>

iPhone

<https://www.apple.com/accessibility/iphone/vision/>

Mac

<https://www.apple.com/accessibility/mac/vision/>

PC

<https://www.microsoft.com/en-us/accessibility/>

Apps:

Seeing AI
BARD
Voice Dream Reader
Learning Ally Link
Read2Go
Screen Sharing Apps such as
Join.Me and Splashtop

Parent Question

Is TV exposure helpful to young children who are blind?

TV provides human voices and sound sources that are not in the child's functional environment. For that reason, the voices heard on the TV do not afford your child with an opportunity for interaction. There is no way for your child to consistently determine which voice is coming from the TV and which from the immediate environment. Except through small pieces of dialogue, the child who is blind or visually impaired is unaware of some of the important visual elements of the TV presentation such as scenery, scene location, body language and the other visual elements that help those without visual impairments understand the events and action as they occur.

As an alternative to exposing your child to TV sound sources at a young age, you can benefit your child more by verbalizing what you are doing, moving to the immediate environment of activity, and allowing for hands-on experiences. When your older child wishes to share TV experiences with others, descriptive video may enhance the TV watching experience.

Assistive Technology: American Foundation for the Blind:

<http://www.afb.org/info/living-with-vision-loss/using-technology/assistive-technology/123>

National Federation for the Blind:

<https://nfb.org/>

Texas School for the Blind and Visually Impaired:

<http://www.tsbvi.edu/general-technology-items/1076-principles-of-assistive-technology-for-students-with-visual-impairments>

National Library Service for the Blind and Physically Handicapped:

<https://www.loc.gov/nls>

American Printing House for the Blind:

www.aph.org

Teaching Students with Visual Impairments: VI Assistive Technology

<https://www.teachingvisuallyimpaired.com/assistive-tech.html>

Assistive Technology for Individuals with Visual Impairments:

www.perkinselearning.org/scout/assistive-technology-overview

Wonderbaby:

www.wonderbaby.org/

Audio Books:

- Bookshare:
<https://www.bookshare.org>

• Learning Ally Audio Books:

www.learningally.org/

Tactile Symbols and Books:

- Project Core 3D Symbols:
<http://www.project-core.com/3d-symbols/>.
- Tactual Book Kit Directions:
<https://www.med.unc.edu/ahs/clds/resources/tactual-book-kit-directions>
- Free tactile books:
Oakmont Visual Aids Workshop: free tactile aids to teachers of blind children:
<http://www.teachersaidsforblindchildren.org/products.html>