



# Tech Talk

**Helping children learn to their full potential**

**Mounds View  
Public Schools**

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## Literacy and Assistive Technology

### What is Literacy?

Literacy can be defined simply as “reading and writing,” the cognitive process of comprehending and composing meaning in text (Koppenhaver & Erickson, 2009). Critical to success in school, the process of literacy development is based on language/communication skills, experiences and socialization. School districts design literacy instruction based on the MN State English Language Arts Academic Standards which are centered on the five components of literacy (phonemic awareness, phonics, vocabulary, fluency, and comprehension) and writing.

can engage in literacy through social networking by communicating with texts, emails and blogs.

Development of vocabulary and language are also important parts of literacy development. Providing students with opportunities to write for genuine reasons and read high interest reading material increases comprehension skills.

### Assistive Technology

Students with identified reading or writing needs may benefit from the use of assistive technology tools. Assistive technology tools can help children who have disabilities do things that others are able to do without it. If your child is not making progress in reading or writing, there may be an assistive technology tool that can help. Tools range from low tech solutions such as specialized paper or highlighters to high tech solutions such as computer software that reads text aloud.

Assistive technology tools are important because they can help your child perform literacy tasks more independently. IEP Teams can use the SETT framework to consider assistive technology solutions when students are not making progress or independently completing literacy tasks.

**To learn more about how your child might benefit from assistive technology to support literacy, contact your child’s IEP team leader.**

**Using AT at Home**

**Highlight Key Words**



Highlight key vocabulary words for your child to help with comprehension

(image labeled highlight)

**Natural Reader**



Free web based text to speech tool.

<http://www.naturalreaders.com/download.php> (image labeled natural reader)

**Visual Bookmark With “Stuck Strategies”**



Increase independence while reading with cueing system written on a bookmark. (image labeled bookmark)



## Examples of AT Tools That Support Literacy

### Reading supports:

**Low tech:** colored overlays, highlighters, reading windows, line markers, and hand-held talking dictionaries

**High tech:** digital/audio books/apps, electronic tools which can adjust text size, color and spacing of the text, text-to-speech programs/apps, online text books

### Writing Supports:

**Low tech:** pencil grips, alternative pencils, adapted paper, visual organizers and hand-held spellers

**High tech:** word processor with audio support, speech to text programs/apps, word prediction, visual organizers and voice dictation programs/apps

### Free On-line Books

Reading aloud is one of the most important things parents can do to help children from infancy to become better readers. Try to make reading an everyday priority! Many engaging books can be found on-line. Below is a list of free on-line books, some with and some without audio support.

National Geographic Young Explorer:  
<http://www.nationalgeographic.com/ngyoungexplorer/>

Starfall: <http://www.starfall.com/>

Storyline Online:  
<http://storytimeonline.net/>

Tarheel Reader:  
<http://tarheelreader.org/>

Open Culture:  
[http://www.openculture.com/free\\_e\\_books](http://www.openculture.com/free_e_books)

Public Library:  
<http://www.publiclibraries.com/>

Contact your Public Library for Access to other free Audiobooks

## Parent Questions

**What is a print disability?** A print disability is an inability to access print in a standard way because of learning, physical or visual impairments.

### How do literacy instruction and AT accommodations work together?

Accommodations for reading/writing help students *gain access to and provide information* about their content classes. While working to improve reading and writing during specific instruction for these skills, students can focus their attention on *learning and expressing knowledge* in their classes.

### How can parents provide reading supports at home?

The purpose of an IEP meeting is to develop a plan that meets the student's educational needs, so it is a good place to discuss supports that might benefit the student at home.

### How do I know if my child needs AT for reading?

AT needs should be discussed at all IEP meetings, but parents may contact their child's case manager anytime with questions. The SETT process is a diagnostic tool the IEP team may use to determine the student's AT needs for reading.

## Common Myths About AT & Literacy

**Myth 1: Digital books are helpful to all readers:** We all have different learning styles. Digital books allow us to adjust text size, text/background color, and use text to speech support, but they are not for everyone. Some of us get eye strain from looking at electronic screens. Others just find paper print easier to use. Bottom line – each of us should decide on our best fit.

**Myth 2: Digital books are a crutch:** By law, schools are required to ensure that students have equal access to educational materials. This means that, when appropriate, schools must provide alternative formats for accessing curriculum, including digital books. It

is essential that students be able to learn class content.

**Myth 3: All students can learn content from audio books:** Not all students have the *auditory* skills that allow them to benefit from audio books. Audio books require that the student have good *listening* comprehension skills, not *reading* comprehension skills.

**Myth 4: Word support is better than whole text support:** When using text to speech utilities, students choose whether the software will highlight individual words, sentences or paragraphs as they are read. When we talk, we don't speak one word at a time; we speak in sentences. Imagine someone talking to you slowly, pausing between words!

Before long, your mind might wander, and your comprehension of what is being said might be lost. Generally, the same is true for reading. When whole text, rather than individual word support is provided, comprehension increases.

**Myth 5: Symbol supported text should never be used:** What type of text we use depends on the student, the situation and purpose. When we teach students to read and decode words, we provide text without symbols to place focus on the text. However, when we teach students with communication disorders or autism, we may need to provide pictures to help the students comprehend the context of their science or social studies lessons, or to access messages on communication devices.