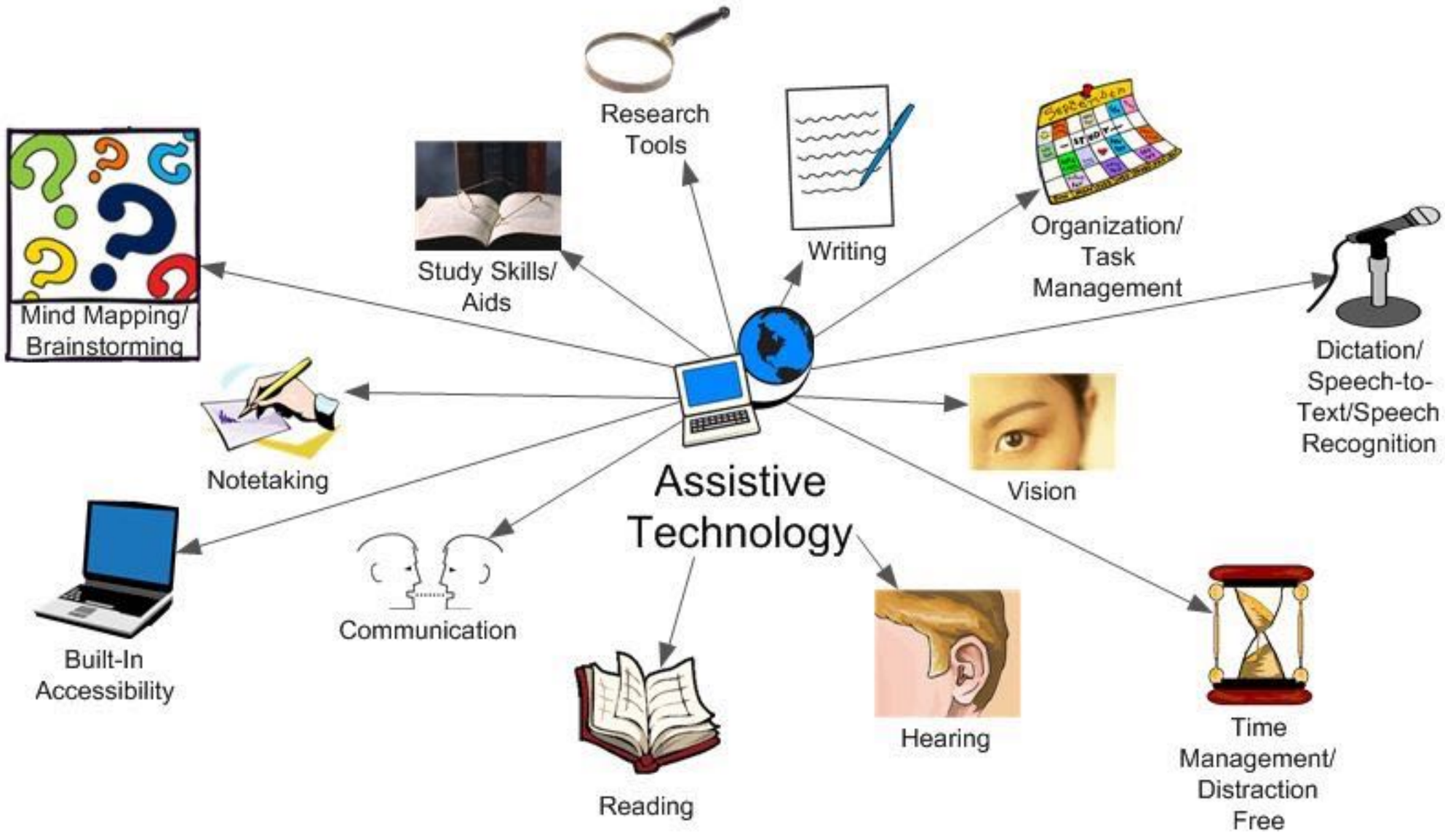
Idak • Learning Disabilities Association of Kingston

*The right to learn, the power to achieve*

# Introduction to Assistive Technology
# "Strategies and Tools" - Part 1
# Fall, 2018

v6

# Assistive Technology




http://www.augsburg.edu/class/groves/assistive-technology/everyone/

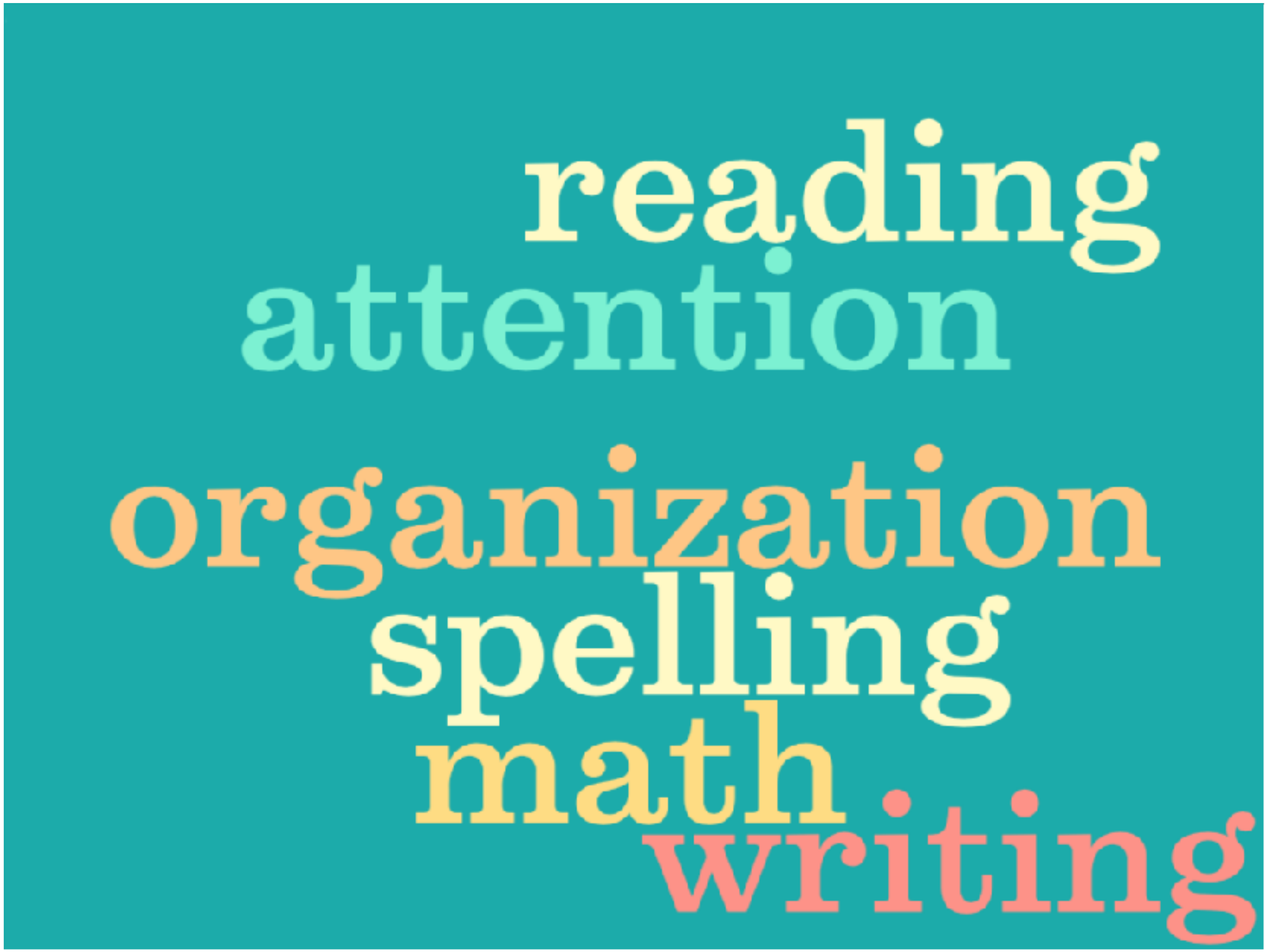
# Assistive Technology

Any item, piece of equipment, or product that is used to increase, maintain, or improve the functional capability of a student with a disability. They are tools that are a must for a student to complete a task.

# *Caveats*

- Prices subject to change
- Apps available on some devices and not others
- These are NOT necessarily the “best” apps, but just some that we like for a variety of reasons. Be sure to read reviews and watch videos before purchasing.
- Check what your affiliation is using (e.g., school, work, colleagues)
- Let us know if there are any errors :)

# *What Can Technology Help With?*



# *READING*

## What Ways Can Technology Help?

- **Read** text to me by word, sentence, entire page (text-to-speech), optionally highlight the spoken parts in different colours
- **Record voice** in audio format, link audio to written notes
- **Simplify** the text to read ( e.g., Newsela!, Rewordify), but provide the same content level
- Verbally **ask for help** with reading: e.g., find word **definitions**
- **Scan** (OCR) print documents into text so they can be read to me
- Get reading material in **alternate formats** (video/audiobooks)

# *eBooks & AudioBooks*

- Bookshare - available in Canada, free for anyone with a print disability that "severely inhibits or prevents" them from reading traditional print material. Apply through CELA online and your local public library.

- ***Project Gutenberg (free)***

- ***Librivox***

- ***Read2Go***

- ***Voice Dream Reader ($14.99)***

- ***Dolphin EasyReader***

# *Reading Material*

**Hoopla** - audiobooks and ebooks available on loan. *

**OverDrive** - similar to Hoopla but better for offline usage. *

( * free, but requires membership

**Epic!** eBook and audio library for K-12 …(subscription required, free

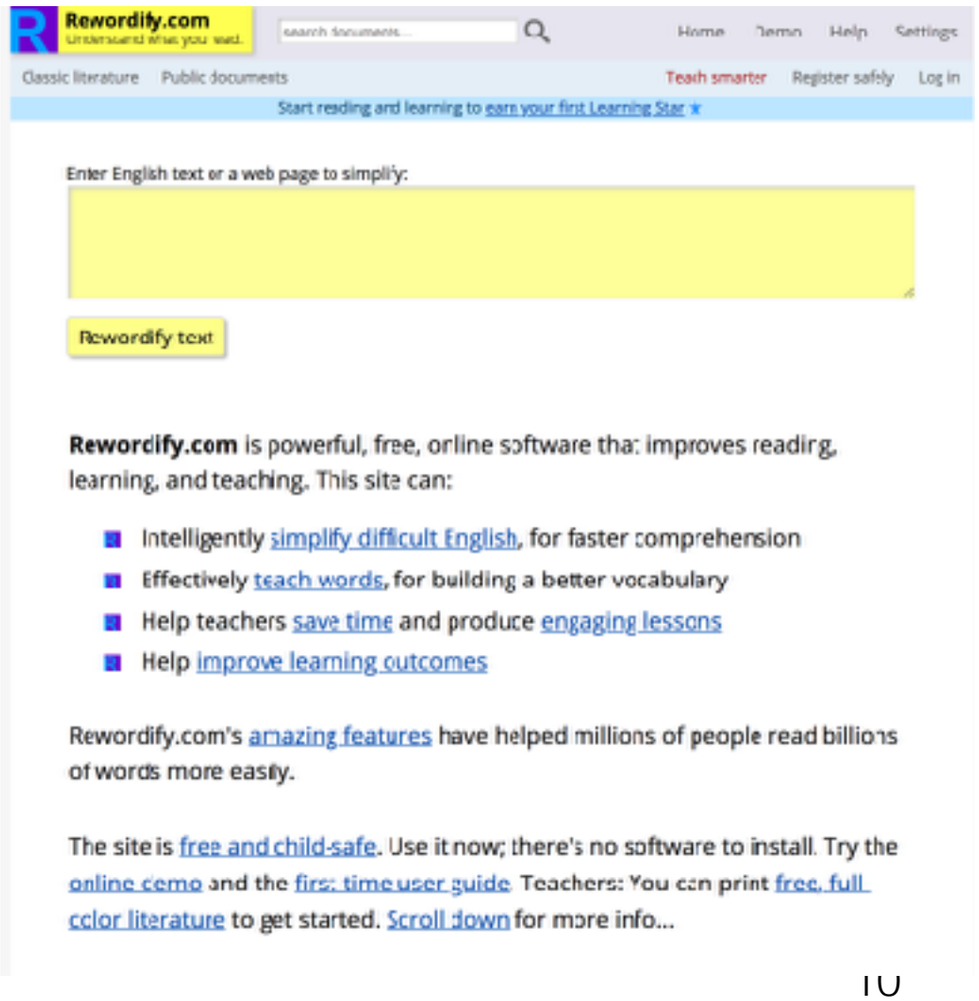
**TumbleBook Library** - picture books. *

**TumbleBook Cloud** - for middle and high school. *

**Newsela Student** - K-12 levelled reading in non-fiction topics (free,

# READING Levelling

- **Rewordify.com** "Replace higher-level vocabulary with words that are easier" (online resource)




**Try it out:**
http://rewordify.com

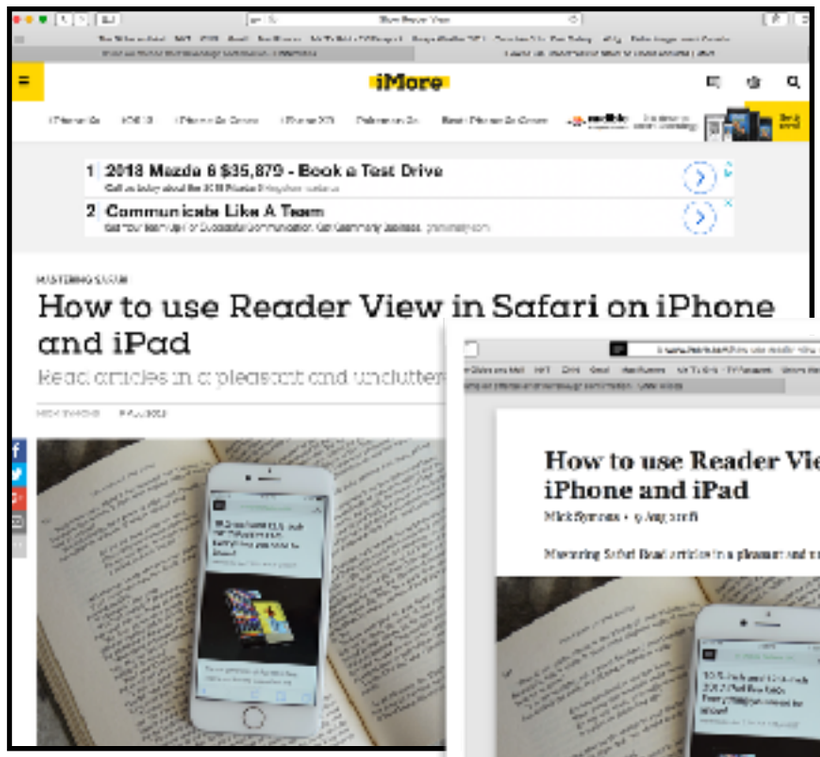
# *Ask for Help…*

- Ask assistants for information (e.g., Siri, Alexa)

- Declutter web pages (Chromebook: Outline - read without clutter; Safari browser: Reader View)

Outline

Reader View



# Books

For reading and making notes

- **Books**

## Using Books

- Text can be read to you.
- Highlight text, set a bookmark, add your own notes

- **Google**

# *Scan Paper and Read To Me*

**Seeing Ai**

- **Seeing Ai** (free)
  Converts handwriting and typed text into speech, on the fly.

**Office Lens**

- **Microsoft Office Lens** IOS **/ Office Lens - PDF scanner** (free)

# *Scan Documents and Read*

***Scan paper to speakable text:***
Camscanner, Scanner  Pro 7, ReadIris, IRIScan to PDF, TextGrabber Real Time OCR

- Camscanner: Document Scanner ($ subscription)

- Scanner Pro 7  ($5.49)

- *Use camera to take picture of text and convert it to editable text which can be read to me.*

- Readiris ($20.99)

- IRIScan to PDF ($9.99)

- TextGrabber (Free and $)

# *Tips for Getting a Good Scan*

- Good light (natural light from an outside window is best, in early morning or late afternoon)
- No overhead lights (avoids glare)
- Hold camera parallel to the page being “scanned”
- Hold camera steady

# *Audio Tools - Text to Speech*

## Turn Text into Recorded Audio Files

- **Text2Speech.org** "Read aloud your text" and **create an mp3 file** for listening to later. (Choose the "play it" button for reading back. On a desktop computer, you can save the file to your computer for later playback.)

**Try it out:**
http:/text2speech.org

# *Read-to-me Tools*

- Claro ScanPen Reader (Free and $)
- ClaroPDF (Free and $)
- ClaroSpeak (Free and $) - type or paste text directly in and it will read it to you
- Natural Reader (free, $)
- VoiceDreamReader ($20.99)

# Resources

**Newsela Student ages 8-18**
https://edshelf.com/tool/newsela/

**Rewordify ages 10+ web free**
https://edshelf.com/tool/rewordify/

**Epic! ages 3-12**
https://edshelf.com/tool/epic/

**Read&Write ages 6+**
https://edshelf.com/tool/read-and-write/

**also Snapverter (free) and subscription ages 6+**
https://edshelf.com/tool/snapverter/
for Google Chrome

**EquatIO**
https://edshelf.com/tool/equatio/

**READING RESOURCES**

- **Khan Academy Kids** - IOS and Google Play
  https://www.khanacademy.org/
  ***Platform***: Android, iPad, iPhone, iPod Touch, Kindle Fire, Fire phone

- **Getting Ready to Read**
  National Centre for Learning Disabilities (U.S.)
  http://www.getreadytoread.org/

**GetReadytoRead.org** is one of the National Center for Learning Disabilities' family of websites, along with NCLD.org, RTINetwork.org & Understood.org.

- Provides tools and tips for early literacy learners.

# Resources

**CHROMEBOOK RESOURCES**

**Turn on Chromebook Accessibilty Options**
https://support.google.com/chromebook/answer/177893?hl=en

- Text-to-Speech: Turn on the screen reader or Select-to-speak
- Display: High contrast mode, screen magnifier, screen resolution, text size
- Keyboard: Sticky keys, on-screen keyboard, highlighting, keyboard repeat rate, word prediction
- Mouse and touchpad: Automatic clicking, tap dragging, large cursor (and change its size), cursor highlighting
- Audio: Play all sounds together through all speakers

**Hear text read aloud**
https://support.google.com/chromebook/answer/9032490?hl=en&ref_topic=9016892

**Use the built-in screen reader**
https://support.google.com/chromebook/answer/7031755?hl=en&ref_topic=9016892

**Use Chromebook touch screen accessibility features**
https://support.google.com/chromebook/answer/6103702?hl=en&ref_topic=9016892

**Use Android apps with accessibility features**
https://support.google.com/chromebook/answer/7126801?hl=en&ref_topic=9016892

**Install Android apps on your Chromebook - Google Play Help**
https://support.google.com/googleplay/answer/7021273?hl=en

**CHROMEBOOK:**

*(Although a little dated, these may still be of interest.)*

**ChromeBook Apps and Extensions for Learners with Dyslexia (published 2016)**
http://www.callscotland.org.uk/downloads/posters-and-leaflets/chromebook-apps-and-extensions-for-learners-with-dyslexia/

**Chromebook Accessibility Features (published 2016)**
http://www.callscotland.org.uk/common-assets/cm-files/files/quick-guides/QG-1421254999.pdf

**ANDROID:**
Android Apps for Learners with Dyslexia / Reading and Writing Difficulties (2015)
http://www.callscotland.org.uk/downloads/posters-and-leaflets/android-apps-for-learners-with-dyslexia/

# *Alternatives To Writing*

**Multimedia:**

Free and $ Apps

- **Explain Everything Whiteboard** ($5.99)

- **Educreations Interactive Whiteboard** (free)

# *Alternatives To Writing*

**Digital Storytelling:**

Free and $ Apps

- **Toontastic** (bought out by Google) - draw, animate, and narrate your own cartoon

# *Alternatives to Writing*

- Create your own ebooks

- **Book Creator** - (IOS and Chrome extension and website version) create voice recording notes and add own pictures, text, drawings. Export as an epub, a pdf, or a video.

# *MATH TOOLS*

**What Ways Can Technology Help?**

- Calculators and Handwritten Equations turned into typed expressions
- Virtual Graph Paper
- Visuals and Manipulatives
- Learning Tools
- Puzzles and Fun

# *Math Tools*

- **My Script MathPad** (IOS free) - use your finger to “write” problem on the screen; turns into typed text; can add/delete parts. Copy text to use elsewhere.

- **Mod Math** (IOS free and $) - virtual graph paper that keeps numbers lined up evenly, doesn’t solve problem; designed by parents of student with dysgraphia

- **EquatIO** - $ - TextHelp Google Doc add-on. Formerly known as g(math). Students can use it to easily enter answers to math questions in Google Math worksheets created there.

- **Photomath** (free) - scan math problems, recognizes handwriting, learn with step-by-step instructions, view graphs

# *WRITING/EXPRESSIVE*

**What Ways Can Technology Help?**

- **Listen** to words as I type them (text-to-speech)
- **Dictate** my words and turn into text (speech-to-text).
- **Predictive** typing (word suggestions to choose from)
- Check my **grammar**, find **synonyms for me**
- Get help with **spelling**: (e.g., ask Siri, dictionary and thesaurus lookup with a voice request)

# *WRITING/EXPRESSIVE*

**What Ways Can Technology Help?**

- **Listen** to work I have completed so I can "hear" where punctuation should be added.
- Use **mind maps** to create a graphical representation of my thoughts
- Export an **outline** from a mind map to start my writing
- Add (searchable) **handwriting,** and **draw** notes
- **Annotate** documents and pictures