Accessible Learning with Assistive Technology:
How occupational therapy can support your child's learning

STEPS TO SUCCESS OCCUPATIONAL THERAPY

In the classroom, assistive technology (AT) enables independence, function, and learning for children who have difficulty with reading and/or writing. Research shows children's and adolescents' motivation for schoolwork can be boosted when using AT, specifically for those with reading and writing disabilities (Nordström, et al., 2019). In addition to increased motivation, AT has been proven to support individuals in organizing/expressing themselves as well as reading/comprehending written materials. Studies have also found that students with reading and/or writing disabilities are more likely to improve on IEP goals when using AT (Watson et.al, 2010). Occupational therapy can support you and your child's learning to use this technology to support their learning and make educational materials accessible.

Assistive Technology for Reading

Text-to-speech (TTS) lets you see text/ hear it read aloud at the same time. Highlighted words highlight words are read by a computer-generated voice. TTS works with any digital text.You can find this extension on Read & Write for Google and Snap & Read.

Audiobooks and digital TTS books let you hear books read aloud. Audiobooks are read by human voices and can be accessed on Learning Ally (www.learningally.org, Bookshare (www.bookshare.org), or your local library's website

You can alter display options in your device's "settings" to changes the font, font size, color, and spacing of text on screens.

Optical character recognition (OCR) reads text from pictures and image files. You can use OCR with worksheets and paper documents by scanning or taking photos of them. Accuracy depends on image quality..

Using dictionaries and thesauri can help you look up words you don't understand when reading

Graphic organizers are visual tools that help keep track of information as you read. and can be made on an electronic device or written

Assistive Technology for Writing

Writing tools
- Slant boards: supports increased wrist extension while writing to improve letter formation
- Dycem mat/taping paper to writing surface: prevents the paper from moving while writing
- Weighted pencils: helps increase pressure used when writing to form darker marks
- Pencil grip: supports use of a tripod grasp when writing

Dictation (speech-to-text) can also be used to write by using your voice. You simply say what you want to write and the words are then written out on the screen. However, you must be sure to speak clearly and learn verbal commands for punctuation.

Grammarly is an AT app for writing that supports students with common spelling or grammatical errors including incorrect word usage, repeated phrases/words, punctuation, etc.

Graphic organizers and mind maps are visual tools that help with generating and organizing ideas in order to brainstorm and plan what you want to write.

Word prediction suggests correct spellings of words after only a few letters are typed or based on subject matter. Co: Writer is a feature available on Google that allows the prediction of words based on subject matter and/or attempted spelling.

References
Watson, A. H., Ito, M., Smith, R. O., & Andersen, L. T. (2010). Effect of assistive technology in a public school setting. American Journal of Occupational Therapy, 64, 18–29.
Svensson, I., Nordström, T., Lindeblad, E., Gustafson, S., Björn, M., Sand, C., Almgren/Bäck, G., & Nilsson, S. (2019). Effects of assistive technology for students with reading and writing disabilities. Disability and Rehabilitation: Assistive Technology, 16(2), 196–208.
https://doi.org/10.1080/17483107.2019.1646821