

Considerations of Assistive Technology in the IEP

Below is a non-exhaustive list of Assistive Technology solutions that can be considered for individuals with disabilities. This list focuses on the area of need rather than a specific disability.

1. If Reading needs to be addressed consider technology that:

a. Enhances standard text:

- Corrective lenses (eyeglasses)
- Highlighting
- Colored overlays
- Manually or electronically changing spacing
- Screen color/contrast adaptations
- Pictures/graphics/symbols

b. Enlarges text and graphics:

- Large print books
- Manual hand-held magnifiers
- Closed circuit television (CCTV)
- Screen magnifier (placed over computer screen)
- Screen magnification software

c. Converts text and graphics to speech

- Talking dictionary (to pronounce difficult words)
- Tape recorded or talking books
- Talking word -processor (to read specific words or all electronic text)
- Screen reading software (to read any information on the computer)
- Text reading software (to read any text that is scanned into electronic format)
- Video description (verbal description of visual information conveyed in videotapes, TV, etc.)

d. Converts text and graphics to Braille or other tactile symbols

- Braille translation software and Braille printer
- Refreshable Braille computer output
- Tactile graphic display systems

2. If Writing needs to be addressed consider technology that:

a. Enhances standard writing

- Adaptive grip, larger size, wide marking or other adapted writing utensil
- Splints, wrist supports, etc.
- Special paper (wider lines, raised lines, etc.)
- Writing guides, signature guides, etc.
- Slanted, larger, or no-slip writing surface

b. Replaces standard writing

- Electronic notetaker, portable word processor with standard keyboard
- Electronic notetaker, with Braille input
- Computer with standard keyboard/pointing device
- Computer with keyboard enhancements or adjustments (keyguard, repeat rate adjustment, etc.)
- Computer with alternative keyboard/pointing device (on-screen keyboards, adaptive keyboards, trackballs, keyboard emulation)
- Computer with switch, scanning, code or other alternative direct selection Input devices
- Word prediction, abbreviation expansion and macros to reduce keystroke input
- Computer with voice recognition input

c. Enhances the composition of written expression

- Dictionary and thesaurus (print or electronic, may be talking)
- Word processing with spell checker, grammar checker, templates, etc. (may be talking)
- Abbreviation/expansion and word prediction (to facilitate composition content and input speed)
- Voice recognition input (to facilitate composition content and input speed)

3. If Math needs to be addressed consider technology that:

a. Replaces mental calculations with mechanical or electronic devices

- Calculator with print output
- Talking ruler, thermometer, clock, watches, etc.)
- Talking calculator with speech output
- Calculator with large print LCD display
- Calculator with large keypad
- On screen calculator with computer input and/or output adaptations
- Math development software
- Accounting software

b. Adapts measuring Devices

- Talking rulers and thermometers
- Measuring devices with speech output
- Measuring devices with large print or LCD display
- Measuring devices with tactile output

4. If Attention, Memory or Organizational Skills needs to be addressed consider technology that:

a. Enhances or supplements attention, memory and organizational skills

- Picture or picture schedule
- Visual organizers (color coded tabs and folders, color coded high lighters, etc.)
- Electronic managers or organizers
- Speech output devices that provide verbal reminders for assignments, sequence of task, etc.
- Software to support organization of ideas
- Software with templates
- Headphones or ear plugs
- Digital or talking watches and clocks
- Signaling systems (auditory, visual and tactile)
- Critical thinking software

5. If Speech Language or Oral Expression needs to be addressed consider technology that:

a. Enhances speech

- Speech amplifier
- Speech clarifier

b. Supplements/replaces speech production with text, pictures, or graphics that communicate

- Communication board/book
- Text display or print output electronic notetaker, portable word processor, computer, or communication device

c. Supplements/replaces speech production with alternative speech

- Artificial larynx
- Tape recorded speech output communication devices with variable input options and range of number of messages that can be recorded, stored and retrieved
- Computer generated speech output communication devices with variable input options and text to speech capacity

- 6. If Listening needs to be addressed consider technology that:**
 - a. Enhances sound and speech reception (amplifies and/or reduces background noise)**
 - Hearing aid
 - Cochlear implant
 - Assistive listening systems (FM, infrared, induction loop, etc.)
 - b. Converts speech to text**
 - Captioning of videotapes and TV
 - Computer assisted real-time captioning (CART)
 - Computer assisted notetaking (CAN)
 - c. Enhances or replaces auditory signaling systems.**
 - Signaling systems for computers, telephone, clocks, fire, etc (loud auditory, visual and tactile)

- 7. If Orientation, Mobility or Ambulation needs to be addressed consider technology that:**
 - a. Enhances orientation, mobility, or ambulation function**
 - Corrective lenses (eyeglasses)
 - White cane/electronic sensor cane devices
 - Auditory location signaler systems
 - Tactile signage
 - Grab bars, lever handles, etc.
 - Door opener
 - Splints, canes, walkers, stair glides, ramps etc.
 - Speech output devices that provide verbal directions
 - b. Supplements/replaces orientation, mobility, or ambulation function**
 - Remote environmental controls (to control lights, appliances, doors, etc.)
 - Manual or power wheelchair
 - Power mobility device (scooter, toy car, etc.)

- 8. If Access to Work Site or Training Programs needs to be addressed consider technology that:**
 - a. Provides equal access to work material, media and instruction**
 - Modified or specialized desk, ergonomic chair, file cabinets, copy machines and other office equipment
 - Page-turner, book holder, electric stapler, monitor stand electric scissors, etc.
 - Alternative format print materials (large print, Braille, electronic, etc.)

- Adjusted or alternative input and output for computers, electronic, and on-line media
- Telephone access (TTY, VCO, amplified phone, etc.)
- Adjusted or alternative output for audio-visual media (captioning, video description, amplified audio output, magnified video output, audio/video conferencing etc.)

b. Provides equal access to the work or training environment

- Physical accessibility of buildings, restrooms, classrooms, library, workspace, desks, etc.
- Emergency signaling systems (visual fire alarms, etc.)
- Alternative signage (raised lettering, Braille)
- Workstation relocation

9. If Transition needs to be addressed consider technology that:

a. Enhances or develops independent living skills.

- (See daily living)

b. Needs for post secondary education, employment

- Transfers ownership of device(s) to student from High School
- Accessible Testing

c. Enhances employment skills

- Adaptive transportation, home/work place modifications
- Public transportation, orientation
- Testing, training, education, job coaching

10. If Daily Living needs to be addressed consider technology that:

a. Enhances or supplements development of daily living skills activities

- Adapted eating utensils (e.g. Built-up handles, plate guards, straws)
- Adapted dressing aids (e.g. Button holders, sock guides, Velcro closures)
- Adaptive watches, adaptive clocks and alarms
- Environmental control units (to control lights, appliances, doors, etc)
- Adaptive driving equipment (e.g. Hand controls)

b. Replaces human functions to allow activity accomplishment

- Feeding systems
- Transfer systems