# Demonstrating Assistive Technology for Computers and Related Devices

## Knowledge and Skills

1. Understands and can explain the differences, advantages, and disadvantages of different types of computers
2. Desktop
3. Laptop
4. Notebook
5. Netbook
6. Tablet
7. Understands and can demonstrate features and function(s) of computer peripherals and related components
8. Input options including big/large key keyboards; ergonomic keyboards; one-handed keyboards; mini keyboards; onscreen keyboards; key guards; speech-to-text; brain computer interface (BCI)
9. Pointing/clicking devices including mice; adapted mice operated by various body parts (foot; thumb; head; mouth); trackball; trackpad; touchpad; joystick; switches/switch interface
10. Monitor features and adjustability
11. Work station options
12. Mounting systems (commercial; DIY options)
13. Understands who can benefit, “eligibility” requirements or misconceptions
14. Understands the range (complexity and cost) of available technologies
15. Understands the use of various alternative access devices for individuals with physical functioning issues especially those with limited or no hand use. (Please note computer access related to sensory issues, speech communication, learning etc. can be found in those specific core competencies.)
16. Can demonstrate hands-free alternatives such as head mice, eye tracking, and switch scanning.
17. Can describe emerging technologies, e.g. brain computer interface.
18. Understands the need to consider appropriate positioning for optimal computer access and fatigue factors inherent in access activities.
19. Understands and is able to explain to consumers vocabulary related to the device, features, and functions.
20. Display (e.g. backlit; size; contrast alternatives)
21. Keyboard
22. Ergonomic and usability features
23. Pointing device (mouse; trackball; head tracker; scanning; eye tracking)
24. Connectivity (e.g. wired; wifi; Bluetooth)
25. System capacities and system requirements of any hardware/software considerations
26. Data ports (USB; HDMI)
27. Operating systems
28. Battery life
29. Able to compare and contrast product types, including features, capabilities, price.
30. Able to compare and contrast at least three products in each subcategory of computer type and peripheral type (see “B”), including similar items from multiple/diverse manufacturers.

1. Able to discuss and demonstrate “built in” features in operating systems (i.e. Windows; IOS) that may provide sufficient accommodation and eliminate the need for “add on” AT (e.g. sticky keys).
2. Has a basic understanding of potential funding sources for this technology (e.g. sufficient to make referrals) including vocational rehabilitation; employer (as an accommodation under the ADA); for children: understands the role of public education in providing devices and services; knows the community resources that can provide additional information regarding funding including programs that recondition (“recycle”) computers for resale (or give away) at a lower price.
3. Understands when formal assessment for computer access may be required, who may fund such assessment, and can refer to appropriately credentialed evaluators for computer access (e.g. OT, ATP).
4. Understands the AT Act definition of “computer and related” devices and what is included in this category
5. Understands the federal reporting requirements for device demonstrations for AT in this category, including specific data elements, consumer satisfaction, and performance measures.

## Resources

## <https://www.microsoft.com/en-us/accessibility/features?activetab=pivot_1:primaryr6>

This site describes Microsoft built-ins including voice typing, onscreen keyboards, mouse and keyboard functions and other features to improve computer access for people with physical disabilities.

AT3 Center Core Competencies - <https://www.at3center.net/repository/devicedemonstration>

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