CONNECT new mexico
Office of Broadband Access & Expansion

Effectively Serving Community Members

DEVICES AND PERIPHERALS BY USE CASE

Devices and Peripherals by Use Case - Fit Analysis of Technology Donations

As businesses inventory their technology assets when considering making a technology donation, it is helpful to understand the value that specific pieces of technology bring to specific populations. It is essential that community members are matched with the technologies that best meet their needs and use cases.

This resource guide explores the various types of computing devices that may be available and their suitability for varying types of users.

		Young Children	K-12 Students	College-bound Students	Adults	Older Adults	People with Disabilities
Large Screen Device	Desktop Computers				X		X
Large Screen Device	Laptops	X	X	X	X	X	X
Large Screen Device	Tablets	X				X	X
Mobile Device	Smartphones						
Peripherals	Headset (w/ Microphone)	X	X	X	X	X	X
Peripherals	Mouse		X	X	X	X	X
Peripherals	Keyboard		X	X	X		X
Peripherals	Webcam			X			X
Peripherals	External Monitor		X	X	X		X
Peripherals	Printer/Scanner				X	X	X
Peripherals	Stylus	X				X	X
Peripherals	Protective Case	X				X	X

"Mobile devices are designed for content consumption, but a large screen device [desktop, laptop] is required for content creation"
~ Bill Avey, former Global Head & GM - HP Education.

RECOMMENDATIONS BY USE CASE

YOUNG CHILDREN:

For young children who are just starting to use computers, a tablet or a laptop with a simple and intuitive interface is the best choice. Tablets like the iPad or the Amazon Fire are great options, as they are easy to use, have a touch-based interface, and are highly portable. Laptops like the Chromebook or the Windows Surface Go are also good choices, as they are affordable, lightweight, and have a durable design that can withstand rough handling.

In terms of hardware configuration, a tablet with at least 32GB of storage, a decent battery life, and a high-resolution display is recommended. For laptops, an Intel Celeron or Pentium processor, 4GB of RAM, and a solid-state drive (SSD) are recommended for basic computing needs. Peripherals such as a protective case, a stylus, and headphones are recommended for tablet users. For laptop users, a comfortable and durable keyboard, a mouse, and a headset with a built-in microphone can enhance the computing experience.

K-12 STUDENTS:

For K-12 students who need a computer for schoolwork, a laptop is the best choice. Laptops like the MacBook Air, the HP Pavilion, or the Dell XPS are suitable for students who need a reliable computer for writing essays, doing research, and creating presentations. Laptops with long battery life and a lightweight design are ideal for students who need to carry their computer between classes.

In terms of hardware configuration, for K-12 students, a laptop with a reliable and durable design, a long battery life, and good performance is recommended. In terms of hardware configuration, an Intel Core i5 or AMD Ryzen 5 processor, 8GB of RAM, and an SSD with at least 256GB of storage are recommended for smooth and efficient computing. Peripherals such as a comfortable and ergonomic keyboard, a mouse, and a headset with a built-in microphone are recommended for students who need to spend long hours working on their computer. An external monitor can also be useful for multitasking and improving productivity.

COLLEGE-BOUND STUDENTS:

For college-bound students who need a computer for their studies, a powerful and versatile laptop is the best choice. Laptops like the MacBook Pro, the Dell XPS 15, or the HP Spectre x360 are suitable for students who need a computer for demanding tasks like programming, video editing, and graphic design. A laptop with a large display and a high-resolution screen is also important for students who need to read textbooks and research papers.

In terms of hardware configuration, college-bound students require a laptop with a powerful processor, a high-resolution display, and long battery life is recommended. In terms of hardware configuration, an Intel Core i7 or AMD Ryzen 7 processor, 16GB of RAM, and an SSD with at least 512GB of storage are recommended for demanding tasks such as programming, video editing, and graphic design. Peripherals such as an external monitor, a comfortable keyboard and mouse, a headset with a built-in microphone, and a high-quality webcam are recommended for remote learning and online collaboration.

ADULTS:

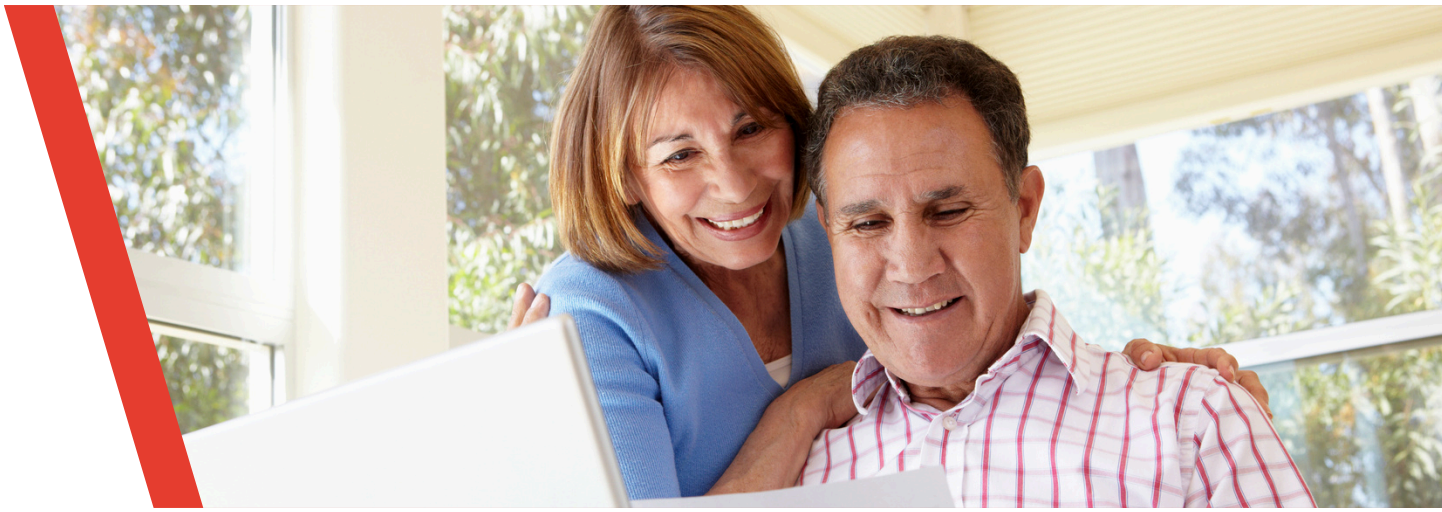
For adults who need a computer for work or personal use, a desktop or a laptop is the best choice. Desktops like the iMac or the Dell Inspiron are suitable for users who need a powerful computer for work or gaming, and have a dedicated workspace. Laptops like the Lenovo ThinkPad or the ASUS ZenBook are also suitable for users who need a portable computer for work or travel.

In terms of hardware configuration, adults require a desktop or laptop with good performance, storage, and connectivity options are recommended. In terms of hardware configuration, a desktop with an Intel Core i5 or AMD Ryzen 5 processor, 8GB of RAM, and an SSD with at least 256GB of storage is recommended for work or gaming. For laptops, an Intel Core i5 or i7 processor, 8GB to 16GB of RAM, and an SSD with at least 256GB of storage are recommended.

Peripherals such as a high-quality monitor, a comfortable keyboard and mouse, a headset with a built-in microphone, and a printer are recommended for work or personal use.

OLDER ADULTS:

For older adults who need a computer for staying connected with family and friends, a tablet or a simple laptop is the best choice. Tablets like the iPad or the Samsung Galaxy Tab are suitable for older adults who need a device for video chatting, browsing the web, and reading emails. Laptops like the Chromebook or the Lenovo IdeaPad are also suitable for older adults who need a simple and easy-to-use computer for basic tasks like word processing and web browsing.



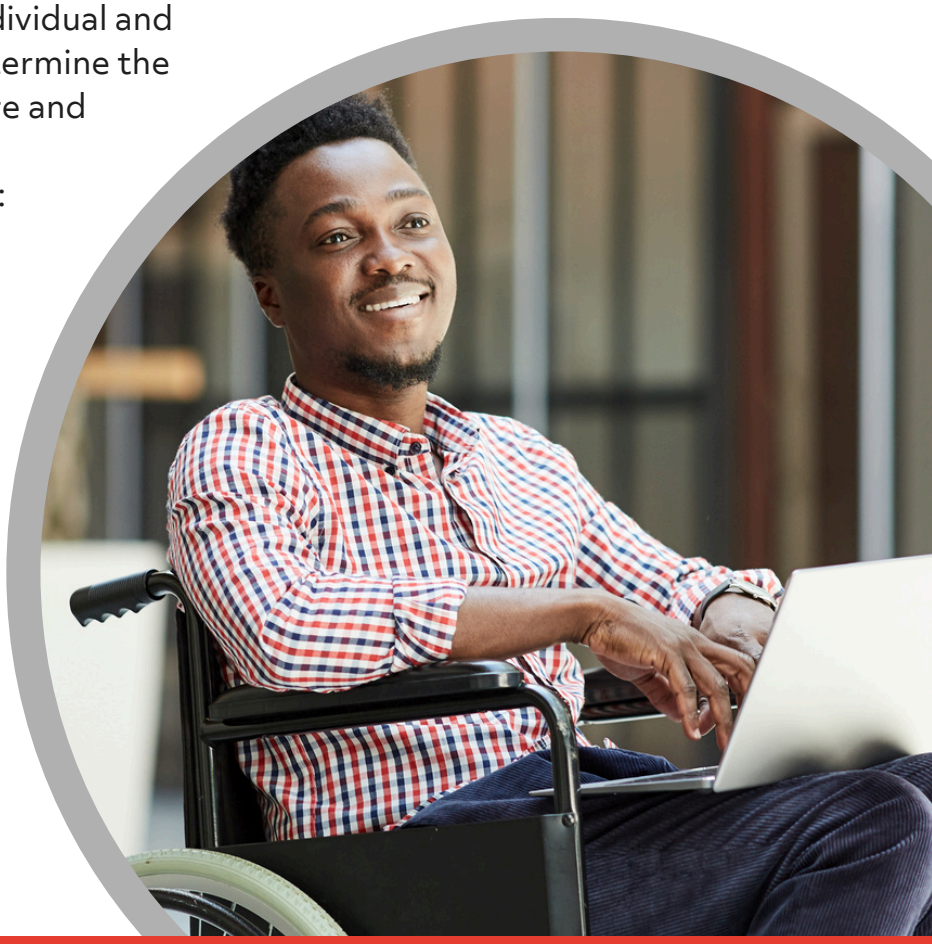
For older adults, hardware considerations include a tablet or a laptop with a simple and easy-to-use interface is recommended. In terms of hardware configuration, a tablet with at least 32GB of storage, a decent battery life, and a high-resolution display is recommended. For laptops, an Intel Celeron or Pentium processor, 4GB of RAM, and an SSD are recommended for basic computing needs.

Peripherals such as a stylus, a protective case, a comfortable keyboard and mouse, and a headset with a built-in microphone are recommended for older adults who may have difficulty with touch-based interfaces or small displays. A printer and a scanner can also be useful for older adults who need to print or digitize important documents.

PEOPLE WITH DISABILITIES

For people with disabilities, there are various computer hardware options available that can cater to their specific needs. For example, individuals with visual impairments may require a computer with a larger screen, high-contrast display, or screen-reading software. Those with hearing impairments may require a computer with visual notifications and alerts. Individuals with physical disabilities may benefit from a
computer with ergonomic features such as a specialized keyboard or mouse.

There are also assistive technologies such as voice recognition software or eye-tracking devices that can help individuals with mobility or dexterity issues to use a computer. It's important to consult with the individual and assess their specific needs to determine the most suitable computer hardware and assistive technology for them.
Some recommendations include:



RECOMMENDATIONS BY USE CASE

VISUAL IMPAIRMENT:

For people with visual impairments, the following hardware configurations and peripherals are recommended:

- Large, high-resolution displays or monitors
- Screen magnifiers or screen readers software
- Braille displays or embossers
- Adjustable or high-contrast keyboards
- High-quality headphones
- Ergonomic and adjustable chairs and desks
- Touchscreens and touchpads with tactile feedback

HEARING IMPAIRMENT:

For people with hearing impairments, the following hardware configurations and peripherals are recommended:

- Visual alert systems for phone calls and notifications
- Vibrating alarm clocks
- Closed captioning software or devices
- High-quality headphones or earbuds with volume controls and noise cancellation
- Assistive listening devices (ALDs) for public places such as theaters and lecture halls

RECOMMENDATIONS BY USE CASE

PHYSICAL DISABILITIES:

For people with physical disabilities, the following hardware configurations and peripherals are recommended:

- Ergonomic and adjustable keyboards and mice
- Speech recognition software or devices
- Switches or adaptive input devices
- Joysticks or trackballs
- Voice-activated home assistants
- Height-adjustable desks and chairs
- Adaptive equipment for mounting and positioning device

COGNITIVE DISABILITIES:

For people with cognitive disabilities, the following hardware configurations and peripherals are recommended:

- Simplified or streamlined user interfaces
- Text-to-speech software
- Visual and auditory cueing systems
- Mind-mapping software
- Word prediction software
- Noise-canceling headphones or earbuds
- Voice-activated home assistants

RECOMMENDATIONS BY USE CASE

OTHER CONSIDERATIONS:

In addition to these hardware configurations and peripherals, there are also other items that may be helpful for people with disabilities, such as:

- Accessible building features, including ramps, handrails, and elevators
- Tactile warning strips on stairs and other surfaces
- Service animals or support dogs
- Sign language interpreters or communication assistants
- Adaptive sports equipment and devices