

# Assistive Technologies

Assistive technologies, or learning supports, refer to physical items, equipment, applications, systems, or any learning support used to create and sustain equitable learning environments for all students through universally designed access, engagement, and participation. Assistive technology supports can be classified into three broad categories: no-tech, low-tech, and high-tech. The benefits of using assistive technologies are associated with supporting adaptations for success in the classroom. Additionally, assistive technologies promote equitable learning for all special populations, and enhance learning experiences in accordance with the Universal Design for Learning (UDL). UDL's approach offers flexibility in how students access and engage in learning content.

1. What are assistive technologies?
2. How can assistive technologies support all students?
3. How can I make my online environment, as well as my learning content, accessible to all students?



to Consider

Assistive technologies, or learning supports, refer to physical items, equipment, applications, systems, or any learning support used to create and sustain equitable learning environments for all through universally designed access, engagement, and participation. Assistive technologies support student needs, whether those needs are academic or physical, and they ensure that access to learning content is available for all students. Teachers can support equitable learning environments for every student by introducing the Universal Design for Learning (UDL). Through UDL, assistive technologies are no longer exclusively for special populations or traditionally marginalized students, but instead are normalized for all students to reduce systemic barriers and enhance learning experiences for everyone.

Assistive Technologies are categorized into three levels: no-tech, low-tech, and high-tech. No-tech approaches are not reliant on digital technology; examples include physical changes to spaces such as adding ramps to the classrooms, providing pencil grips, or using special scissors. Teaching methods, like using graphic organizers or providing students with explicit “to do” lists, are also assistive technologies. Low-tech strategies include using basic technology tools like a calculator or a cell phone, an ergonomic mouse or a mouse adapted for left-handed users, audiobooks, or closed captions on videos. Low-tech assistive technologies can also be part of physical spaces like push buttons to open doors and automatic doors. High-tech assistive technologies might require costly purchases. Examples include Augmentative and Alternative Communication devices that help students communicate ideas and feelings without using verbal communication, computers with touch screens, mobile devices like tablets or cellphones that include voice to text software, hearing devices, and electric wheelchairs.

Assistive technologies are beneficial for all learners. Teachers may provide direct instruction in multiple ways, whether in blended, online, or face-to-face learning environments. In-person, no-tech assistive technologies options might include written materials that make use of text formatting, such as bolding and underlining to emphasize learning content. In blended and online learning, low-tech options, such as Learning Management Systems, are often utilized when providing digital versions of physical learning materials. High-tech support might include voice recordings of direct instruction that can be uploaded alongside digital learning materials. Often, teachers utilize a combination of assistive technologies that involve multiple assistive technologies, from no-tech to high-tech.

Assistive technologies can help promote self-reliance and independence by giving students more voice and choice in their learning. Utilizing assistive technologies, or learning supports, helps ensure that students have equitable opportunities for learning.

## KEY Elements