

Assistive Technology in Early Childhood



All materials and handouts
for this presentation can be
found here:

<http://bit.ly/ECES18>



Introductions

Bruce Kennedy, MA, MPA

ADE/ESS Assistive Technology Specialist

bruce.kennedy@azed.gov

(928) 637-1876

Northern Region

Mitch Galbraith, M.S, OTR/L

ADE/ESS Assistive Technology Specialist

mitch.galbraith@azed.gov

(602) 542-4016

Central Region

ADE/ESS Assistive Technology Specialist

(520) 628-6665

Southern Region



Arizona Department of Education



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Assistive Technology (AT)



Az-Tech
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- › [Mission Statement](#)
- › [Definition of Assistive Technology](#)
- › [Assistive Technology Consideration Resource Guide](#)
- › [ADE/ESS Assistive Technology Short-Term Loan Library](#)
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UPCOMING AT TRAININGS & EVENTS

None at the moment, busy starting the new grant year with 15 wonderful school districts.

What's happening in AT?

2017 Az-Tech Grant Teams
New teams video coming soon!



• <http://bit.ly/adeaztech1>

What is Assistive Technology?

Special Education Law
defines **Assistive Technology**
as both **devices** and **services**.

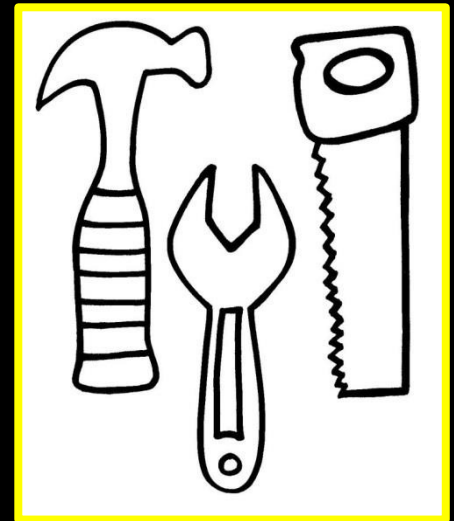


Assistive Technology Devices

- “**Any item***, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used to **increase, maintain, or improve the functional capabilities of individuals with disabilities**”

- IDEA 2004
- Rehabilitation Act Section 504
- American's With Disabilities Act

* except surgically implantable devices



In other words...

- **ANYTHING** you can make, or buy, or change, that will help **ANY** kid, with **ANY** disability, do **ANYTHING**.



Assistive Technology Services

- "... **any** service that directly assists an individual with a disability in the selection, acquisition, or use of an assistive technology device."
 - ♦ Evaluation and selection of an assistive technology system
 - ♦ Purchasing, leasing, or acquiring devices
 - ♦ Training and technical assistance for the individual, family/caregiver and school staff

AT in the IEP

- Assistive Technology must be considered at every IEP meeting, regardless of the type or severity of the student's disability.

In other words...

- Consider Assistive Technology for every student, every disability, every IEP, every time.



Section 504 of the Rehabilitation Act

Prohibits discrimination against individuals with disabilities

Applies to all programs that receive federal funds, including the public school system

Students with disabilities must be given the same opportunities to participate in educational programs and activities as their classmates, and the use of AT may be considered as an accommodation.

If a child does not qualify for special education services, they may be able to acquire AT through a 504 plan.

AT Simply Said



Increases, maintains or improves functional capabilities in:

- Reading
- Math
- Motor Aspects of Writing
- Writing
- Executive Functions
- Computer Access
- Communication
- Vision
- Hearing
- Positioning & Seating
- Activities of Daily Living

AT Needs to Be:

- Considered for every student
- Used on a consistent basis
- Integrated into daily life
- A part of activities and routines

Selecting Assistive Technology

- Many models available
- Many checklists available
 - For IEP teams
 - Individual professionals
 - Parents
 - Students



The Assistive Technology Continuum



The SETT Framework (Zabala, 1995)

Step 1

Student: everything that is currently known about the student

Step 2

Environment: all environments in which the student is typically expected to live and learn

Step 3

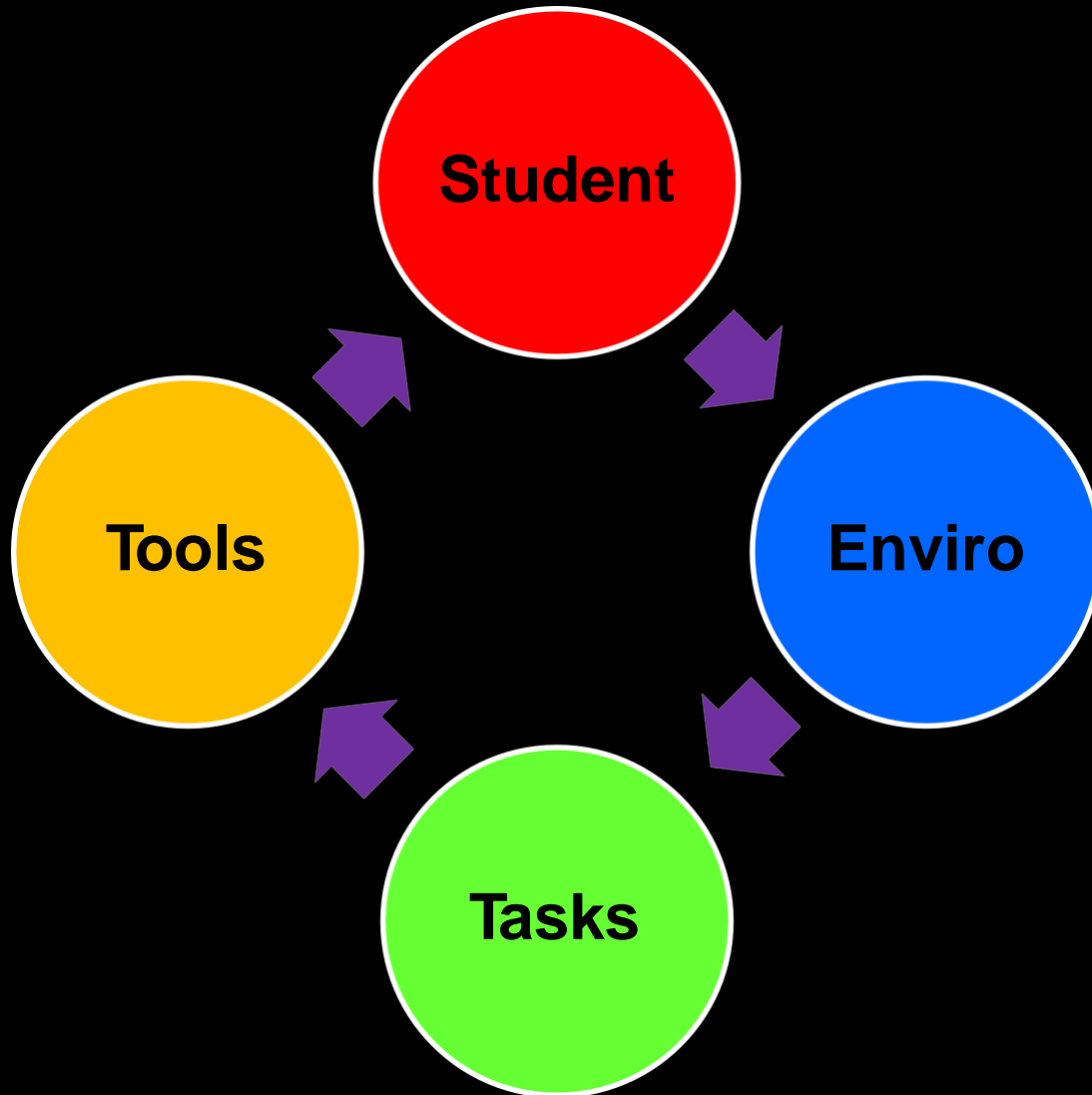
Tasks: activities in which the student is expected or desires to participate

Step 4

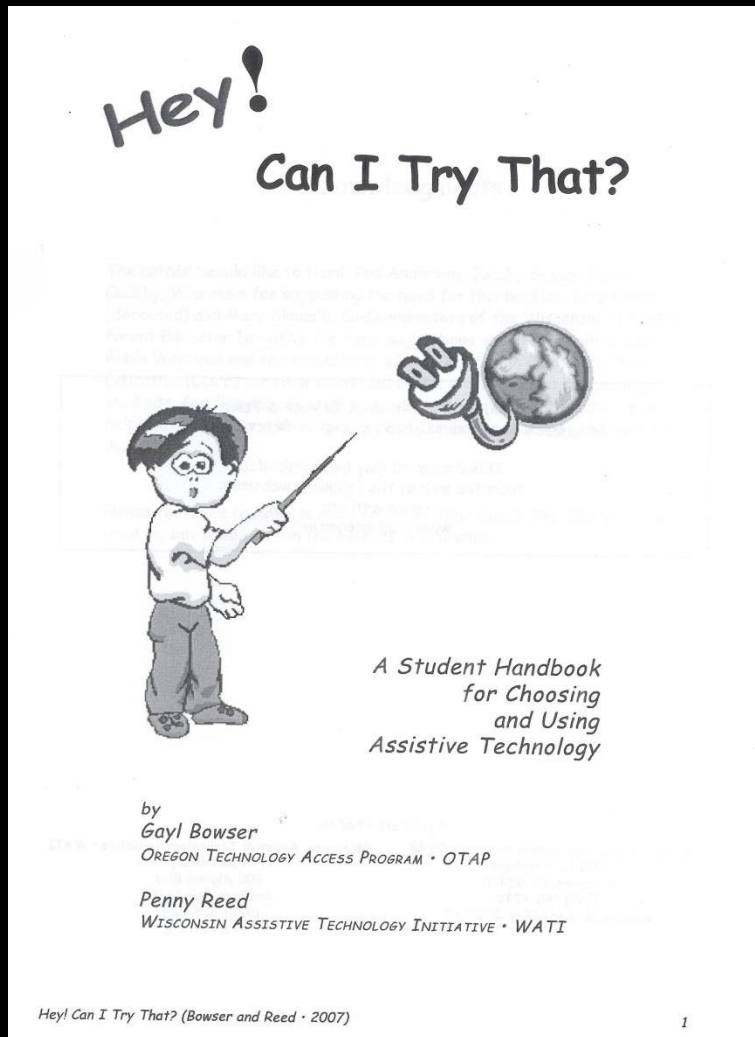
Tools: a system of AT tools and devices that enable a student to successfully perform these tasks

SETT

is an ongoing process



A Student Centered Guide To AT Selection



- Free downloadable resource
- Make as many copies as you need or want
- <http://bit.ly/2GraaU3>



Disclaimer

The Arizona Department of Education/Exceptional Student Services (ADE/ESS) does not prescribe, endorse, or provide advertising space for textbooks, software, devices, or curriculum materials. The ADE/ESS does not evaluate textbooks, software, devices, or curriculum materials for compliance with meeting the state minimum curriculum standards and does not recommend any specific textbooks, software, devices, or curriculum materials. Each public education agency (PEA) is responsible for selecting curriculum materials that will meet the minimum state curriculum standards. PEAs may also establish their own policies for textbook, software, and curriculum materials' selection and adoption.

The ESS-Assistive Technology (AT) team does frequently review software, devices, and curriculum support items to determine if they may be used to assist students with disabilities in accessing and benefiting from the general education curriculum. These supports may be considered assistive technology, as defined in the Individuals with Disabilities Education Act (IDEA). The ESS-AT team may procure, demonstrate, and provide training on a wide range of assistive technology items and may compare and contrast the features of these items, but the team is precluded from making any recommendations for one product over another.

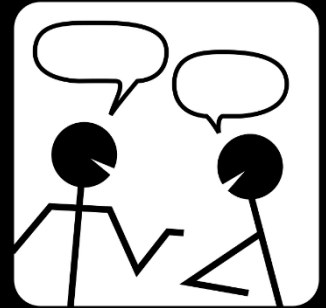


What's the
deal with
screen time?

Thoughts?

American Academy of Pediatrics--May 2018

- Make your own family media use plan
- Set limits and encourage playtime.
- Screen time shouldn't always be alone time.
- Be a good role model.
- Know the value of face-to-face communication
- Limit digital media for your youngest family members
- Create tech-free zones.
- Don't use technology as an emotional pacifier.
- Apps for kids - do your homework
- It's OK for your teen to be online.
- Warn children about the importance of privacy and the dangers of social media
- Remember: Kids will be kids



NAEYC Policy Statement

"The distinction among the devices, the content, and the user experience has been blurred by multi-touch screens and movement-activated technologies that detect and respond to the child's movements. With guidance, these various technology tools can be harnessed for learning and development; without guidance, usage can be inappropriate and/or interfere with learning and development."

Play is central to children's development and learning.



- "Integration of vestibular and proprioceptive inputs gives the child control over his eye movements. Without the guidance of these sensations, it is difficult for the child to focus on an object or follow it as it moves. Later on it may be difficult to move the eyes along a line of print. Reading may be so exhausting that it simply isn't worth the effort." ~ Ayres (2005)



- "Hand-eye coordination also involves and utilizes so many other important body systems such as your child's proprioception, vestibular, visual processing and sensory-motor. If your child struggles with hand-eye coordination, you may find they have a hard time with balance and coordination, focusing their eyes on their hand movements, poor handwriting, playing sports, and trouble gripping their pencil." ~ Ayres (2005)



What Makes an Effective Early Childhood App?

- ❑ Open ended to support play and problem solving
- ❑ Promotes literacy, language and vocabulary development
- ❑ Include rich, engaging activities that invite a high degree of interactivity and control by the user
- ❑ Encourages movement--fine and gross motor
- ❑ Enhances and encourages interactions with adults or peers, rather than promoting solitary exploration
- ❑ Culturally diverse/free of stereotypes
- ❑ Meets a developmental need





A Few Good APPs

Flexible Seating





Fidgets



Power Card



Dolphin wants you to remember:

- Share your toys
- Friends share their toys even if it is your favorite toy
- Friends share!

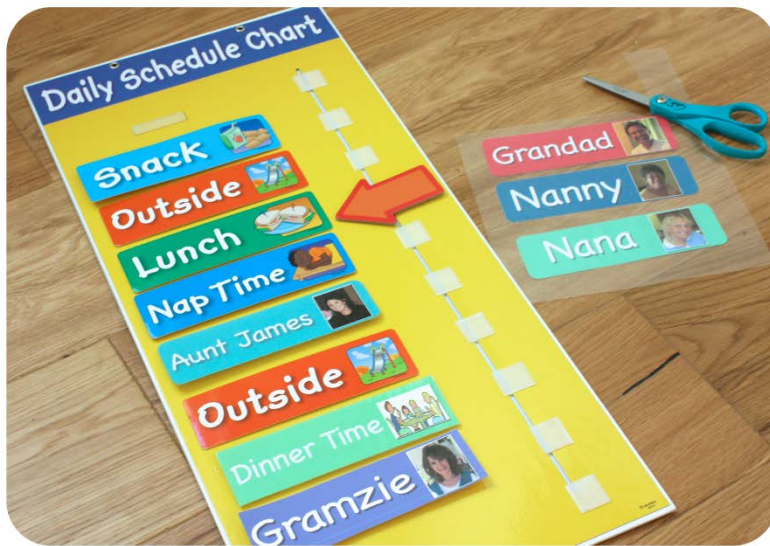
Adapted from Gagnon, 2001



Technology Count Down Board

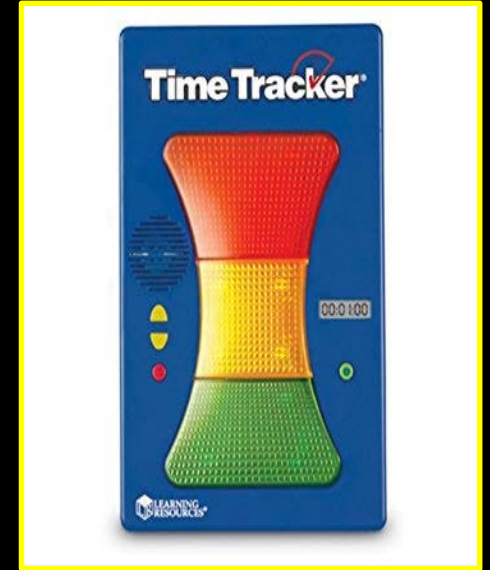


Schedules



- Schedule of the learner's day at school
- Class schedule posted at a central location, available for all students
- Sequence of two events to help a student understand what comes next

Timers



Boundaries



- Arrange the environment in a systematic way.
- Includes covering materials unnecessary for performing skills

Organization



Hands-On Literacy



Hands-On Literacy

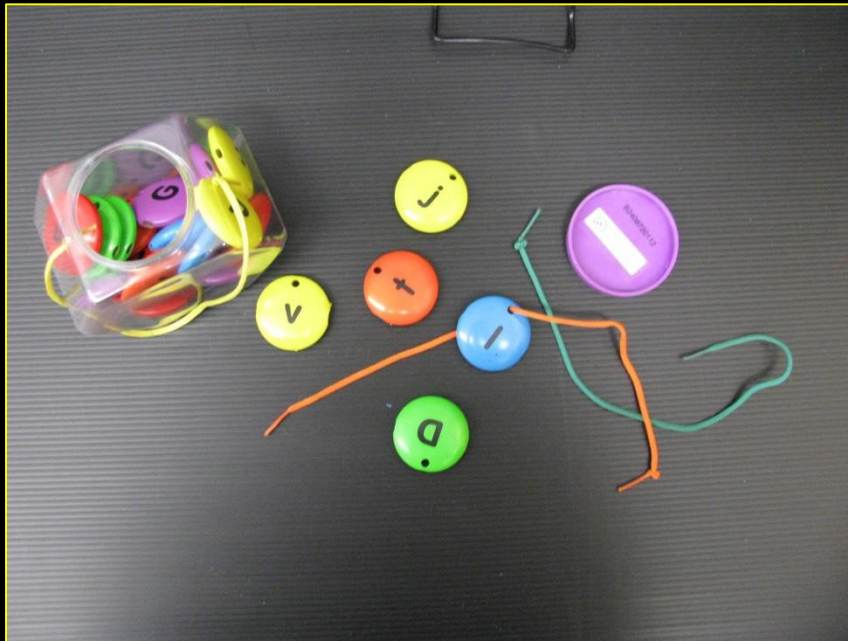


Hands-On Literacy



Literacy Skill Building

Motor integration



Tactile – kinesthetic integration



Literacy Skill Building

Copy a pattern



Limited motor access



Literacy Skill Building



Literacy - tactile/sensory



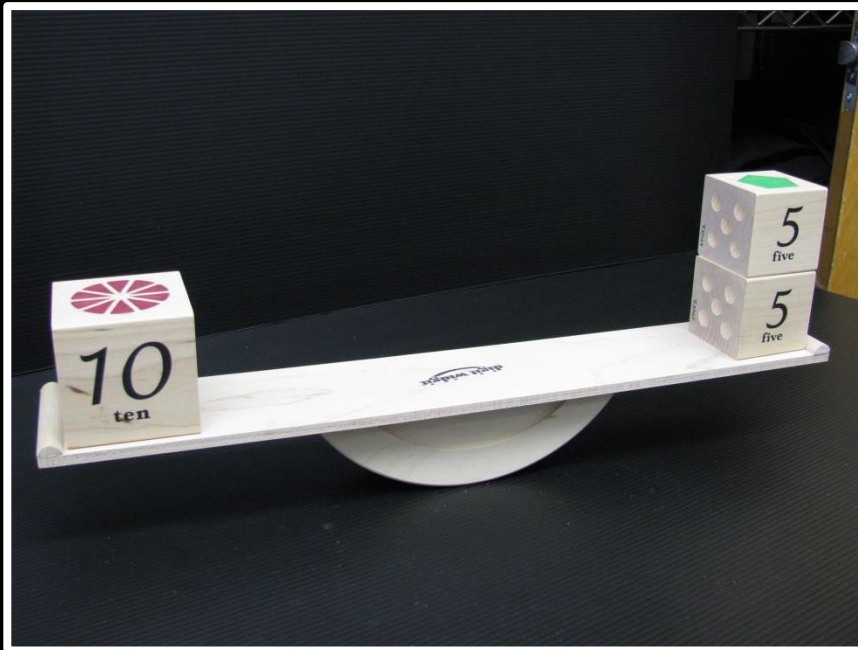
Literacy - tactile/sensory



Literacy & Visual Impairment



Hands-on mATH



Hands-on mATh



Hands-on mATh



Hands-on mATh



Communication



Fine Motor-Cutting



Pencil Grips

Which one do I pick?

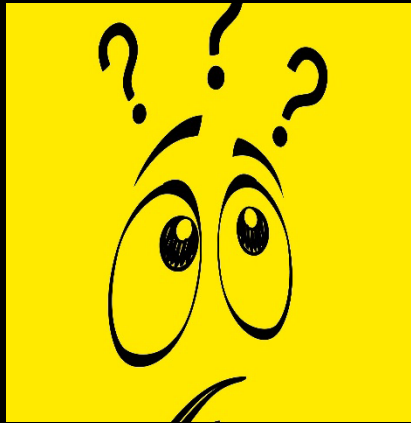
The Grotto Grip



The Claw



The Grip



The Stetro Grip

Writing



Computer Access

- Alternate Keyboards
- Key guards
- Alternative Mice
- Mobile device Keyboard



Switch Accessibility



Switch Accessibility



Switch Accessibility



Music-Accessibility



Accessibility



Accessibility



Accessibility



Accessibility



Accessibility



Accessibility



Accessibility



Make it !



Glue Stick Fat Crayons

Materials

- Old glue stick containers
- Old crayons, broken into 1-inch pieces
- Tempered glass measuring cup

Directions

- Remove old glue from glue stick holders.
- Melt crayons in microwave in tempered glass measuring cup.
- Pour melted crayons into glue stick holder.
- Let cool and color.
- A nice fat crayon that is easy to grasp and will not break

Make it !



Adapted Scissors

Materials

- 1 pair of regular scissors
- 1 strip of had plastic from folder
- Stickyback velcro

Directions

- Place a strip of loop (soft) sided Velcro along the handles of the scissors
- Place a strip of hook (rough) sided Velcro on each end of the folder strip
- Bend the plastic folder strip and attach to the Velcro to create easy open scissors

Uses

- For children who have difficulty separating out their fingers into holes

Make it !



Pool Noodle Grip

Materials

- Pool noodle cut into 2-inch parts
- Dycem, Rubbermaid shelf liner or Wikki Stix

Directions

- Place the art tool or writing tool into the pool noodle hole.
- If the tool is too big, wrap the tool with Wikki Stix, shelf liner or Dycem to build up the diameter of the tool.

Uses

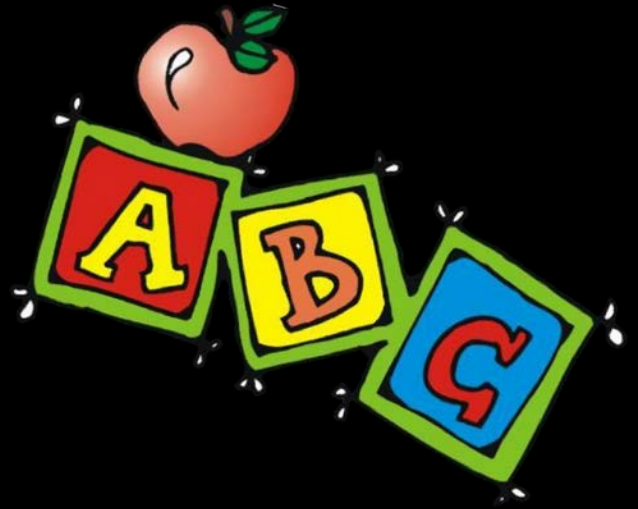
- Can be used for a variety of tools such as paintbrushes, markers, crayons, etc.

Great!

- So?
- You showed us all this great stuff and you gave us some great ideas but now I want to try some of it . . . and I can't afford it. What if it doesn't work for my kids?

Arizona Department of Education Assistive Technology Services

- Grant funded Trainings
- District Trainings
- Regional Trainings
- Tech Support
- Consultation
- Loan Library



Any LEA (public or charter school) is eligible Private schools,
BIE schools not eligible

www.adeatloan.org



A Statewide, Phoenix-based program of the
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Arizona Department of Education AT Short Term Loan Library

Please note: The equipment inventory via this program is only available for loan to personnel from public education agencies (i.e., districts, charters, and other public schools), as defined in Arizona state statute and recognized by the Arizona Department of Education. If you are not affiliated with a public education agency, please visit the Arizona Technology Access Program's loan program, which is available to all residents of Arizona.



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AzTech is the Assistive Technology Program of the Arizona Department of Education/Exceptional Student Services. Learn more about AzTech.



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The Arizona Technology Access Program (AzTAP)

Northern Arizona University
300 W. Clarendon Ave, Suite 475
Phoenix, AZ 85013
(602) 728-9534
TTY: (602) 728-9536

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Arizona Department of Education Assisive Technology Short Term Loan Library

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Assistive Technology

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