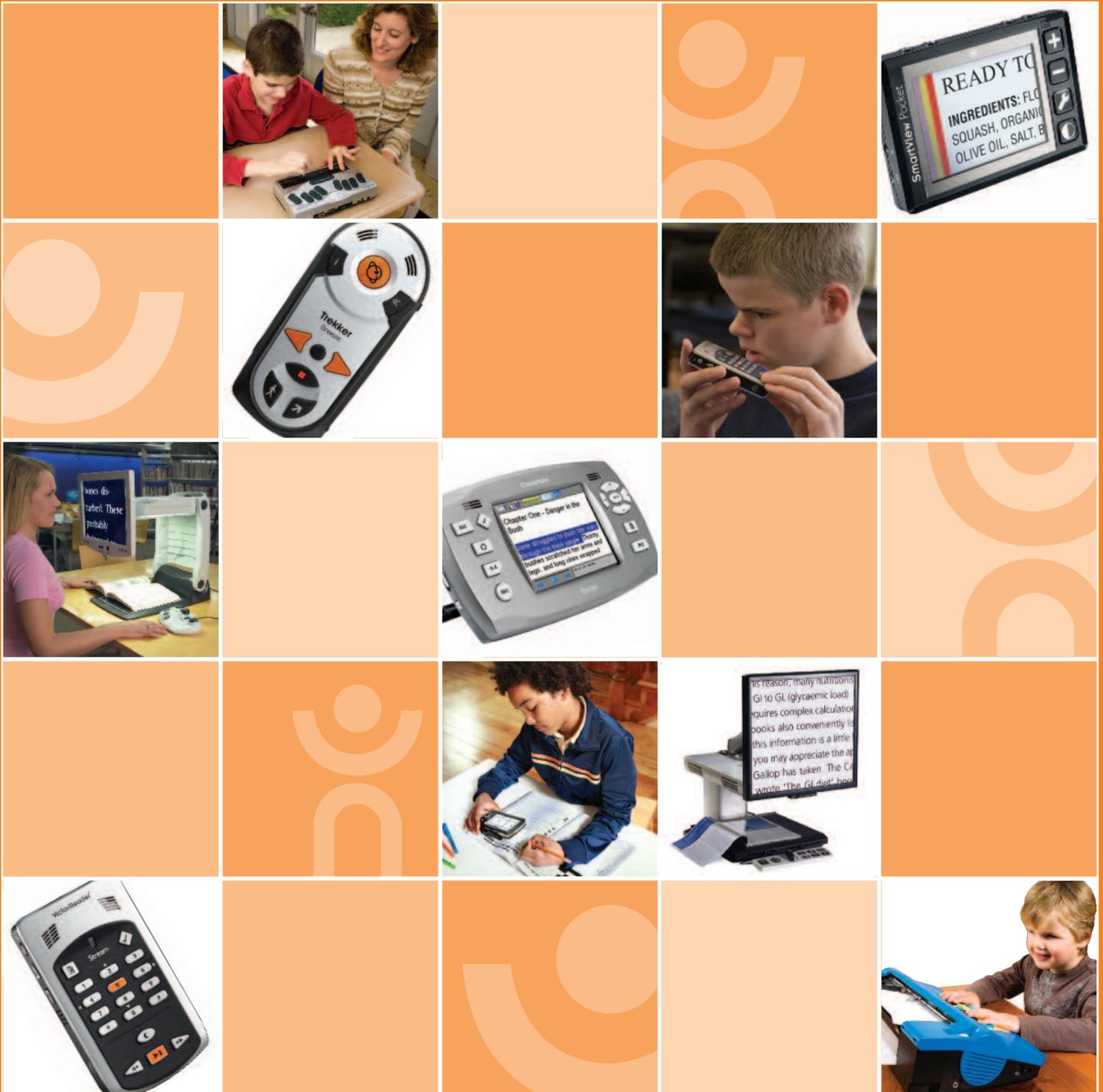


## Assistive Technologies Resource Guide

### Matching Assistive Technologies With Learning Goals





## An Unprecedented Opportunity to Invest in Assistive Technologies

On February 17, 2009, President Obama signed into law the American Recovery and Reinvestment Act (ARRA), commonly referred to as the economic stimulus package. ARRA will more than double the current federal funding for special education and early childhood intervention. Never before has the federal government invested so much in special education. And never before has so much been riding on the decisions made by educators.

In the long term, ARRA seeks to ensure better educational outcomes. The U.S. Department of Education has emphasized, however, that funds should be used for investments that can be sustained after ARRA funding expires. Such investments can include assistive technology, purchase of specialized devices, as well as professional development. All IDEA ARRA funds must be obligated by September 30, 2011.

Assistive technology helps students who have visual impairments or learning disabilities increase their access to the general curriculum and improve their academic performance. Choosing the appropriate technologies and tools such as audio book players, note takers, embossers and video magnifiers that meet students' specific needs today and in the future is critical.

Assistive technology enhances the learning experience in academics and other areas such as organization, independence, orientation and mobility, as well as leisure and recreation. Students are very likely to continue to benefit from using assistive technology tools long after the stimulus funds are gone.

## Helping You Determine the Education and Technology Needs for Your Students

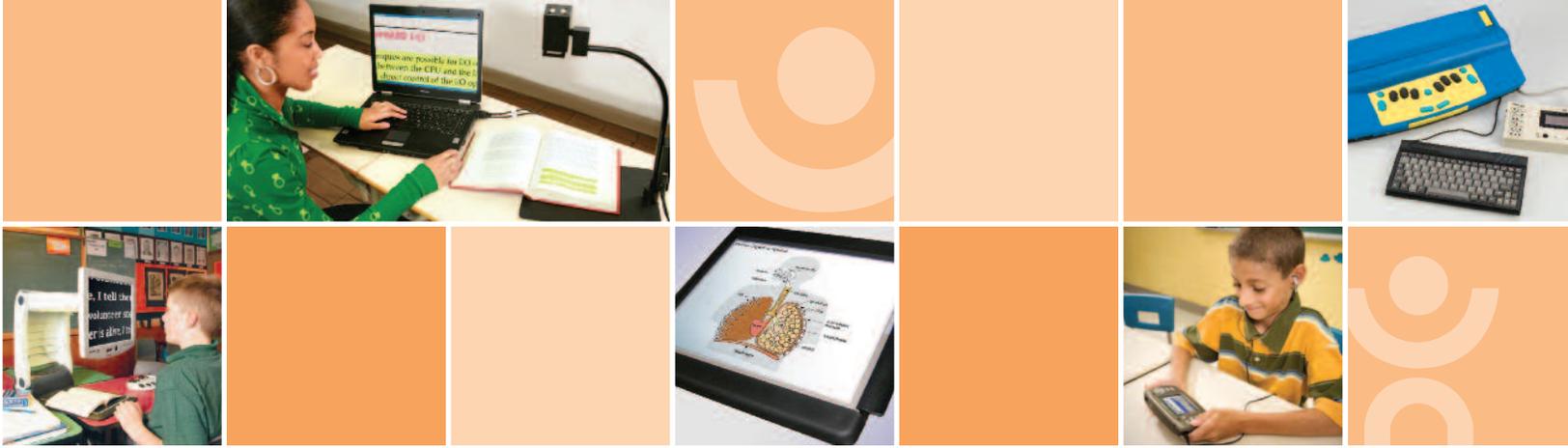
HumanWare can assist your school district in evaluating the effectiveness of your current technology, and help you make wise decisions in updating and planning your future technology needs.

HumanWare is the leading company in providing assistive technology within the educational sector for students with visual impairments and those with learning disabilities.

Decisions need to be made that will address the students' current technology needs. Our experienced, knowledgeable team can work with your district staff to identify classroom tasks that can be supported with the appropriate technology.

### Key Questions to Ask When Purchasing Assistive Technology

- Does the student have a visual impairment or learning disability impairment?
- Is the student an auditory or tactile braille learner or both?
- How much vision does the student have?
- Can the student use magnification?
- Are motor skills or other disabilities important to consider?
- How long will the piece of technology meet the student's educational needs?
- What type of support and training will be needed?



## A Full Range of Innovative Products

HumanWare offers a complete range of innovative products that empower students who have visual impairments and learning disabilities. For over 25 years our products have been designed to last and grow (and in many cases, to go) with the students. HumanWare products give students the independence to compete effectively with peers and feel connected – to be a vital part of the global information age in which we live.

## HumanWare Programs and Services Support Education Efforts

### ■ Braille Literacy Scholarship Programs

*Mountbatten Learning System Award* – A program to encourage braille learning for early childhood and elementary grades. Offered for children ages 3 thru 8. Parents and teachers tell us why braille literacy will be key to the students’ success.

*BrailleNote mPower Award* – A program to award students who productively and creatively use the BrailleNote mPower in the classroom for reading, writing, math and research. For ages 8 thru 18 years of age.

For more information about these programs, visit [www.humanware.com/braille\\_literacy](http://www.humanware.com/braille_literacy).

### ■ Webinars and Professional Development

HumanWare offers a comprehensive schedule of free webinars provided by product managers and frequent guest presenters who are leaders in the assistive technology field.

### ■ Technical Support

Free support for HumanWare products is available toll free from 8:00 a.m. EST to 4:00 p.m. PST. The tech support team is comprised of highly trained personnel who are also users of the products. The team is also responsible for providing direct feedback to our Research and Development team in order to improve products and user interface based on customer feedback.

### ■ On-Site Workshops and Training Seminars

HumanWare offers free on-site training and workshops provided by qualified product specialists who use the technology in their daily lives, including their employment. We can customize our training to meet the needs of your teachers and students.

Tutorials and curricula have been provided for HumanWare products through leading education agencies, consultants and manufacturers. Resources and free downloads are available at [www.humanware.com](http://www.humanware.com).

### ■ Presentations and Events

To view a schedule of HumanWare presentations and events, visit [www.humanware.com/seminars](http://www.humanware.com/seminars).

## One-on-One Consultation

Call today to schedule your free technology consultation from HumanWare. An experienced representative will sit down with you to discuss your organization’s specific needs and develop a plan that will meet those needs in both the short- and long-term.

# Digital Book Players That Support Audio Textbooks and Reading Materials

- Benefits learners whose primary and/or learning channel is auditory
  - Improves comprehension through built-in study tools
    - Encourages listening to books for recreation and leisure
    - Provides access to DAISY, NIMAS, MP3 and other formats

Assistive Technology	Product Features	Student Benefits
<p><b>ClassMate</b>  <i>Students read digital books and text documents with audio and visual display</i></p> <p>Elementary thru employment</p>	<ul style="list-style-type: none"> <li>• Provides synchronized audio and text output</li> <li>• Text is highlighted as it is being read aloud</li> <li>• User defined bookmarks</li> <li>• Text and voice notes can be added to books</li> <li>• Speaking dictionary</li> </ul>	<ul style="list-style-type: none"> <li>• Benefits reading thru multi sensory approach by both hearing and seeing text</li> <li>• Helps bring focus to important passages</li> <li>• Allows quick page and chapter navigation</li> <li>• Develops study skills</li> <li>• Increases vocabulary, spelling and pronunciation</li> </ul>
<p><b>Victor Stream</b>  <i>Portable Digital Book Player and Voice Recorder</i></p> <p>Elementary thru employment</p>	<ul style="list-style-type: none"> <li>• Small and portable with 15 hours of playback</li> <li>• Plays educational content from Bookshare, RFB&amp;D, Web Braille, MP3, DAISY, NIMAS, BRF and text files</li> <li>• Create book marks and voice notes</li> <li>• Record voice notes and lectures</li> </ul>	<ul style="list-style-type: none"> <li>• Flexibility to listen to books at any given time or place</li> <li>• Extensive selection of reading material to match the students interest and reading level</li> <li>• Develops improved study skills and classroom interaction</li> <li>• Improves note taking and listening skills</li> </ul>
<p><b>Victor ClassicX+ and Wave</b>  <i>Desktop Digital Talking Book Players</i></p> <p>Elementary thru employment</p>	<ul style="list-style-type: none"> <li>• Compact and sturdy</li> <li>• Plays audio DAISY content from RFB&amp;D</li> <li>• Variable speed playback and auto-pitch compensation</li> <li>• High contrast and large buttons for ease of use</li> </ul>	<ul style="list-style-type: none"> <li>• Rugged for classroom use</li> <li>• Easy slot load CD insertion</li> <li>• Playback speed can be adjusted to the complexity of reading material</li> <li>• Allows access for low vision or motor challenged students</li> </ul>

## Learn How Teaching Listening Skills Can Improve Student Achievement

Listening strategy is a listening, summarizing and note taking strategy that will help you turn your students into critical listeners who actively participate in the listening process.

[www.learningthroughlistening.org](http://www.learningthroughlistening.org)

## Bookshare™ – Accessible Books and Periodicals for Readers with Print Disabilities

- Bookshare is free for all U.S. students with qualifying disabilities
- Bookshare dramatically increases the accessibility of books
- Bookshare offers a searchable online library of more than 45,000 digital content
- Bookshare offers an extensive online library for readers of all ages

[www.bookshare.org](http://www.bookshare.org)



“The ClassMate Reader allows students to be independent. They can read, when and where they want, for the first time. Non-readers can now experience what a fluent reader can — reading for pleasure.”

Alison Gammage  
 Reading Specialist

# Low Vision Devices to Assist in Reading Print

- Increases independence in accessing small size print
  - Enhances reading experience by decreasing visual fatigue
    - Improves reading rate and efficiency
      - Encourages writing thru visual confirmation

Assistive Technology	Product Features	Student Benefits
<p><b>SmartView Pocket</b> Handheld magnifier for reading classroom materials</p> <p>Elementary thru employment</p>	<ul style="list-style-type: none"> <li>• Lightweight, small package</li> <li>• Large, simple keys, large display</li> <li>• Magnifies 3X – 9X</li> <li>• Convertible handle/stand for looking at objects and sliding over reading material</li> <li>• Freeze image feature</li> </ul>	<ul style="list-style-type: none"> <li>• Easy to carry and use in different classrooms</li> <li>• Intuitive to learn, fun to use</li> <li>• Instant access to more materials, reduces need for large print</li> <li>• Easy for younger students to use</li> <li>• Shows teacher what student is viewing and steadies image</li> </ul>
<p><b>SmartView Versa</b> Handheld magnifier for viewing and reading classroom materials</p> <p><b>SmartView Versa+</b> Handheld magnifier and multi-media player for education and entertainment</p> <p>Elementary thru employment</p>	<ul style="list-style-type: none"> <li>• Lightweight, small package, with hard case and belt hook</li> <li>• Magnifies 5X – 15X</li> <li>• Freeze image feature</li> <li>• MP3 player, video player</li> <li>• Audio recorder for note taking</li> <li>• Storage/retrieval of pictures, audio, video</li> </ul>	<ul style="list-style-type: none"> <li>• Portable, protected, harder to misplace</li> <li>• Access to more materials, reduces need for large print</li> <li>• Shows teacher what is being read and steadies image</li> <li>• Increases access to audio learning and incorporates video learning in class and for homework</li> <li>• Increases in-class attention and functions as study aid</li> <li>• Provides library of study materials and notes</li> </ul>
<p><b>SmartView Graduate</b> Portable PC based, 2-way (desktop and distance) magnifier</p> <p>Middle School thru employment</p>	<ul style="list-style-type: none"> <li>• Lightweight, quick to assemble system, USB powered from PC</li> <li>• Distance viewing to 50X</li> <li>• Take, store, retrieve classroom snapshots on PC as JPEG file</li> </ul>	<ul style="list-style-type: none"> <li>• Easily moves from class to class, fits in backpack or laptop bag</li> <li>• Allows for students to follow classroom presentations</li> <li>• Helps in taking notes from a distance to incorporate in other PC applications</li> </ul>
<p><b>SmartView Xtend and SmartView Synergy</b> Desktop magnifier for classroom</p> <p>Elementary thru employment</p>	<ul style="list-style-type: none"> <li>• Large LCD monitor and x/y reading tray to view variety of print formats</li> <li>• Programmable high contrast colors and magnification settings</li> <li>• Options for video in, and PC split screen to create customized workstation</li> </ul>	<ul style="list-style-type: none"> <li>• Reduces the need to produce large print copies</li> <li>• Allows for multiple users to individualize settings</li> <li>• Allows distance viewing with plug-in camcorder</li> </ul>
<p><b>myReader2</b> Desktop transportable Auto-Reader</p> <p>Elementary thru employment</p>	<ul style="list-style-type: none"> <li>• Transportable design that folds down with built in handle</li> <li>• Auto scrolling in column, row or word by word modes of captured text</li> <li>• Captured materials can be adjusted to child's visual and learning requirements,</li> <li>• Built-in video in/out</li> <li>• Toggle for split screen with PC and printed material</li> </ul>	<ul style="list-style-type: none"> <li>• Easy to move from class to class</li> <li>• Requires little physical capability</li> <li>• Increases reading speed and comprehension</li> <li>• Allows distance viewing with plug-in camcorder or larger LCD for group viewing</li> <li>• Allows two documents to be read or viewed at the same time</li> </ul>

# Braille Devices That Support Reading and Writing

- Improves literacy skills thru:
  - Improvement in writing skills through efficient editing tools
  - Accuracy in spelling and expanded use of vocabulary
- Provides access to the general curriculum
  - Access to electronic textbooks, worksheets, supplementary support materials
  - Access to research and downloadable books on the Internet

Assistive Technology	Product Features	Student Benefits
<p><b>Mountbatten Learning System</b>  <i>Multi-purpose electronic braille writer for learning braille</i></p> <p>Early childhood elementary</p>	<ul style="list-style-type: none"> <li>• Ergonomic design and electronic keyboard</li> <li>• Auditory feedback when keys are pressed</li> <li>• Visual display for interaction with sighted teachers and peers</li> <li>• Music play mode</li> <li>• Standard keyboard for creating classroom material in braille</li> </ul>	<ul style="list-style-type: none"> <li>• Aids in writing and reading braille for early childhood with weak finger strength</li> <li>• Supports learning in a multi-sensory approach with combined speech and braille</li> <li>• Allows visual monitoring of braille information being written</li> <li>• Encourages exploration and introduction of braille keyboard</li> <li>• Instant communication and interaction between the student, teachers and peers</li> </ul>
<p><b>BrailleNote mPower</b>  <i>Productivity tool for word processing, book reader, scientific calculator, Web browser, email</i></p> <p>Elementary, high school and employment</p>	<ul style="list-style-type: none"> <li>• One piece note taker with speech and braille output</li> <li>• Powerful word processor with spell check, dictionary and thesaurus</li> <li>• Interactive Nemeth math tutorial</li> <li>• Built-in book reader for reading BRF, Daisy, and NIMAS books from Bookshare, RFB&amp;D and Web Braille</li> <li>• Blind-friendly internet browser (non-graphical)</li> </ul>	<ul style="list-style-type: none"> <li>• Learning is multi-sensory (tactile and auditory) for reading and writing</li> <li>• Improves writing, spelling, vocabulary and understanding meanings of new words</li> <li>• Supports learning the braille math code</li> <li>• Provides access to educational curriculum in the students preferred media – speech and braille</li> <li>• Efficient access to resources and research on the internet</li> </ul>
<p><b>Brailiant and Braille Connect Braille Displays</b>  <i>Electronic braille output for mainstream computer applications</i></p> <p>Intermediate, high school and employment</p>	<ul style="list-style-type: none"> <li>• Various character size displays to best represent the screen</li> <li>• Instant real time braille output</li> <li>• Interface with portable and desktop computers</li> <li>• Wireless bluetooth and USB connectivity</li> </ul>	<ul style="list-style-type: none"> <li>• Better understanding of applications, complex screen formats and layout</li> <li>• Improves spelling and effective editing</li> <li>• Lightweight and easy to transport</li> <li>• Dependable connectivity without cables</li> </ul>



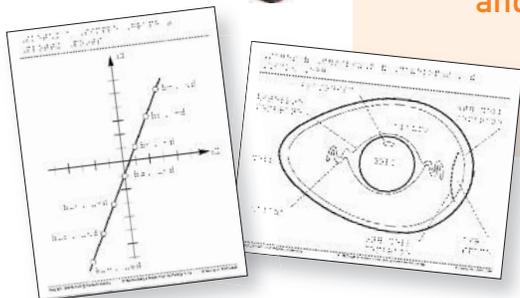
“I know this device (MountBatten Learning System) is going to provide my student with the best tool for developing his reading and writing skills in the same manner as his sighted peers.”

Peggy Abernathy  
 MISD Teacher of the Visually Impaired  
 McKinney, Texas

# Braille Devices That Support Math, Science and Social Studies

- Provides access to simple and complex math equations and formulas
  - Provides detailed speech and braille descriptions of graphs and charts
  - Enhances understanding of graphical information
  - Develops and improves tactile reading skills

Assistive Technology	Product Features	Student Benefits
<p><b>PIAF (Pictures in a Flash)</b> Creates raised line, tactile drawing, shapes and simple diagrams</p> <p>Early childhood thru employment</p>	<ul style="list-style-type: none"> <li>• Simple method to create basic shapes and graphics</li> <li>• Tactile material can be drawn and customized for classroom topics</li> <li>• Students can draw or learn to print</li> </ul>	<ul style="list-style-type: none"> <li>• Supports learning math and science</li> <li>• Provides introduction to skills for reading tactile images</li> <li>• Promotes self expression and spatial concepts</li> </ul>
<p><b>ViewPlus Braille Embossers</b> Produce hard copies of braille, Nemeth math and tactile graphics with print and braille labeling</p> <p>Early childhood thru employment</p>	<ul style="list-style-type: none"> <li>• Translates text into braille</li> <li>• Translates math into Nemeth braille</li> <li>• Produces detailed tactile graphics</li> <li>• Braille and print are produced on same page</li> </ul>	<ul style="list-style-type: none"> <li>• Easy to create classroom material in braille from MS Word</li> <li>• Quickly produce braille math by sighted teachers</li> <li>• Increases understanding of science and math concepts</li> <li>• Low vision and sighted peers can follow along with print on the braille page</li> </ul>
<p><b>Audio Graphing Calculator</b> Accessible audio graphing calculator</p> <p>Intermediate thru employment</p>	<ul style="list-style-type: none"> <li>• Graphs are represented in audio tones</li> <li>• Spoken menus and keyboard commands</li> <li>• Graphs are produced in an audio format or a hard copy in braille</li> </ul>	<ul style="list-style-type: none"> <li>• Provides access to understanding math and science graphs</li> <li>• Accessible to students with visual impairments</li> <li>• Improves comprehension thru multi-sensory approach (tactile and auditory)</li> </ul>
<p><b>IVEO Hands-On Learning</b> Auditory information for tactile graphics</p> <p>Early childhood thru employment</p>	<ul style="list-style-type: none"> <li>• Tactile drawing with speech output provides detailed descriptions at various levels</li> <li>• Scalable graphics</li> <li>• Recorded voice, sounds and web sites can be included</li> </ul>	<ul style="list-style-type: none"> <li>• Assists learning and understanding with two modes of information</li> <li>• Allows for more detailed information without adding complexity</li> <li>• Engages exploration of tactile graphics</li> </ul>



Knowledge is power—the power to achieve, function in the family, thrive in the community, succeed in a job, and contribute to society.

## Devices That Support Independent Travel Skills

- Improves orientation
  - Increases confidence during mobility
    - Achieves better understanding of immediate surroundings
    - Encourages participation in school and social activities

Assistive Technology	Product Features	Student Benefits
<p><b>BrailleNote GPS</b> GPS software and receiver to assist in travel</p> <p>Elementary thru employment</p>	<ul style="list-style-type: none"> <li>• Speech and braille output</li> <li>• Ability to create routes</li> <li>• Virtual exploration mode</li> <li>• Headings, points of interest and street names are spoken</li> </ul>	<ul style="list-style-type: none"> <li>• Braille readers travel with less distraction in noisy environments</li> <li>• Students can prepare and study routes prior to travel</li> <li>• Students become more familiar with neighborhoods and cities</li> <li>• Students travel with more confidence</li> </ul>
<p><b>Trekker Breeze</b> All-in-one GPS device to aid in travel</p> <p>Elementary thru employment</p>	<ul style="list-style-type: none"> <li>• Clear speech output</li> <li>• Nine key user interface</li> <li>• Create routes while walking with instructor</li> <li>• Spoken information on heading, street names and points of interest</li> </ul>	<ul style="list-style-type: none"> <li>• Useful for low vision, non-braille readers and other disabilities</li> <li>• Easy to learn</li> <li>• Reinforces mobility instruction</li> <li>• Students travel with confidence and assurance from auditory confirmation</li> </ul>
<p><b>Trekker Pro</b> Feature-rich PDA with external GPS receiver</p> <p>Intermediate thru employment</p>	<ul style="list-style-type: none"> <li>• Portable device with speech output</li> <li>• Ability to create routes</li> <li>• Virtual mode</li> <li>• Provides headings, points of interest and street names</li> </ul>	<ul style="list-style-type: none"> <li>• Lightweight and small in size for students to carry</li> <li>• Students can prepare and study routes prior to travel</li> <li>• Students can explore and become familiar with neighborhoods and cities</li> <li>• Students can travel with confidence and assurance from auditory confirmation</li> </ul>

## Reading Devices That Make Printed Material Accessible

- Allows quick and timely access to print material
  - Elevates learning by keeping pace with the general curriculum
    - Provides assisted reading as a tool to compensate reading challenges
    - Improves auditory and listening skills

Assistive Technology	Product Features	Student Benefits
<p><b>ScannAR</b> All-in-one scan and read solution</p> <p>Elementary thru employment</p>	<ul style="list-style-type: none"> <li>• Easy user interface</li> <li>• Natural speech output</li> <li>• Self contained one-piece device</li> <li>• Expansive memory to store reading library</li> </ul>	<ul style="list-style-type: none"> <li>• Computer skills are not necessary</li> <li>• Easy to understand</li> <li>• Easy to transport</li> <li>• Reading material is readily available</li> </ul>
<p><b>Kuzweil 1000</b> Scan and read software for PC</p> <p>Elementary thru employment</p>	<ul style="list-style-type: none"> <li>• Read printed text with magnification, speech or with optional braille output</li> <li>• Scanned material can be transferred to portable devices</li> <li>• Scanned material can be produced in large print or braille</li> </ul>	<ul style="list-style-type: none"> <li>• Useful for low vision and blind readers</li> <li>• Allows for students to read on a device of their choice</li> <li>• Information is provided in preferred format</li> </ul>