

Best Practices for Teaching Students with Visual Impairments

By Montana School for the Deaf and the Blind Outreach

Abstract

Teaching strategies for students with visual impairments require specialized training to ensure access to core curriculum subjects. This session will focus on communication tips, accommodations, and instructional considerations, all designed to support educators in creating an inclusive learning environment. Collaboration with Teachers of Students with Visual Impairments (TSVIs) and outreach consultants is emphasized as essential for fostering effective education. Participants will receive a copy of *When You Have a Visually Impaired Student in Your Classroom* by the American Foundation for the Blind to enhance their understanding and application of these strategies.

Learner Objectives

- Participants will gain an understanding of how to use and implement general supplementary aids and services related to visual impairments
- Participants will learn the basics of adapting their classroom to meet the needs of their student with visual impairment and blindness to provide access to educational materials, environment, assistive technology and curriculum.
- Participants will obtain valuable and applicable strategies to use in their classrooms and how to include those throughout the day to help students with visual impairments

Where Do I Begin??

What to do when you suspect or learn of a student in your class with a visual impairment.

Visual Impairment by definition

American Federation for the blind defines:

Visual Impairment: generally refers to any visual condition that interferes with a person's ability to perform everyday activities

Blindness: generally refers to the lack of usable vision

Legal Blindness: 20/200, visual field no greater than 20 degrees

- Role of classroom teacher
-what are visual concerns-
ABC's
- IDEA-the law
-expected to receive education in
the least restrictive environment

VISION CONCERNS

The following is a list of the ABC'S of vision problems. If a student is experiencing difficulties using their vision, the first step is to take the student to an optometrist or ophthalmologist to determine the cause, receive a visual diagnosis, approximated visual acuity, and determine if the student needs to be referred for school based vision services.

Appearance

- ☐ One/both eyes turn inward/outward, or one is slightly higher/lower than the other eye.
- ☐ Crusty or red eyelids or red eyes.
- ☐ Eyes that are in constant, rapid motion.
- ☐ Drooping eyelids(s)
- ☐ Pupils of different sizes, or different reactions to light and accommodations.
- ☐ Glands that are enlarged, inflamed, or otherwise infected.
- ☐ Excessive tearing, light sensitivity, lid spasms.

Behavior

- ☐ Lack of or reduced eye contact.
- ☐ Shows poor eye muscle coordination.
- ☐ Covers or closes one eye for critical seeing.
- ☐ Thrusts head forward to see distant objects.
- ☐ Tilts head to one side for critical seeing.
- ☐ Tries to "brush away" a blur.
- ☐ Rubs eyes often or blinks often while reading or looking at books.
- ☐ Frowns or squints when looking at or trying to see distant objects.
- ☐ Stumbles often over objects, is awkward
- ☐ Holds book, toy, or picture too close or too far away.

Complaints

- ☐ Sensitivity to light.
- ☐ Burning or itching of eyes or eyelids.
- ☐ Seeing double, or blurred vision.
- ☐ Headaches, usually after a critical visual task.
- ☐ Nausea or dizziness.

School Related

- ☐ Difficulty copying from the board.
- ☐ Difficulty with handwriting.
- ☐ Confuses similar words.
- ☐ Needs more light to read than expected.
- ☐ Reading comprehension deteriorates with time.
- ☐ Doesn't read to the end of a sentence before going to the next.
- ☐ Head moves instead of eyes when reading or looking at pictures.
- ☐ Loses place when reading and skips lines.
- ☐ Needs to use finger as a line marker.
- ☐ Difficulty solving maze puzzles and word searches.
- ☐ Math errors due to misalignment of numbers.



Role of Teacher of Teacher of Students with Visual Impairments

- teaches disability specific skills-aspects of Expanded Core Curriculum
- conduct assessments to determine abilities and needs
- prepares/obtains textbooks, instructional materials, appropriate medias
- works closely with teachers and families and educational team
- provides suggestions and strategies to educational team
- make suggestions for additional services- O&M services
- provides inservice trainings for educational team and those working with student

Role of General Education Teacher

- provides general curriculum
- coordinates times to meet with TSVI-in case materials need to be prepared
- creates classroom environment
- monitors and prepares the student IEP

Role of Para Educator

- under supervision of Spec. Ed Teacher
- provides support for the student
- provides support and opportunities for student to interact with peers and develop skills

Basic Tips

- always state your name when approaching student
- sensitive and discreet
- you may need to describe what others may see
- feel comfortable with using “see” and “look”



What do MSDB Consultants Provide?

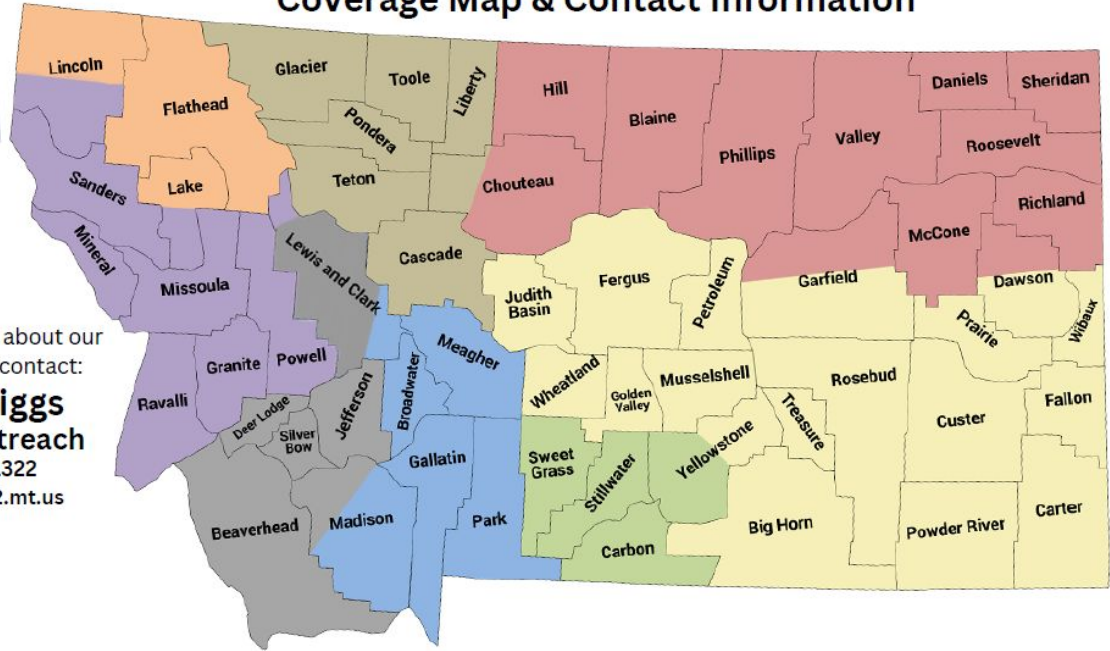


- Consulting services
- Modeling of techniques and equipment
- Help with supporting students, staff, parents
- MSDB on campus events available
for staff and students
- Family Learning Weekends
- Training and inservices for staff
- Untangling the Dots Events
- Conduct Functional Vision Assessments

MSDB Outreach Consultants Supports



MSDB Visually Impaired Outreach Consultant Coverage Map & Contact Information



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How do I work with a Student
Who is Visually Impaired?

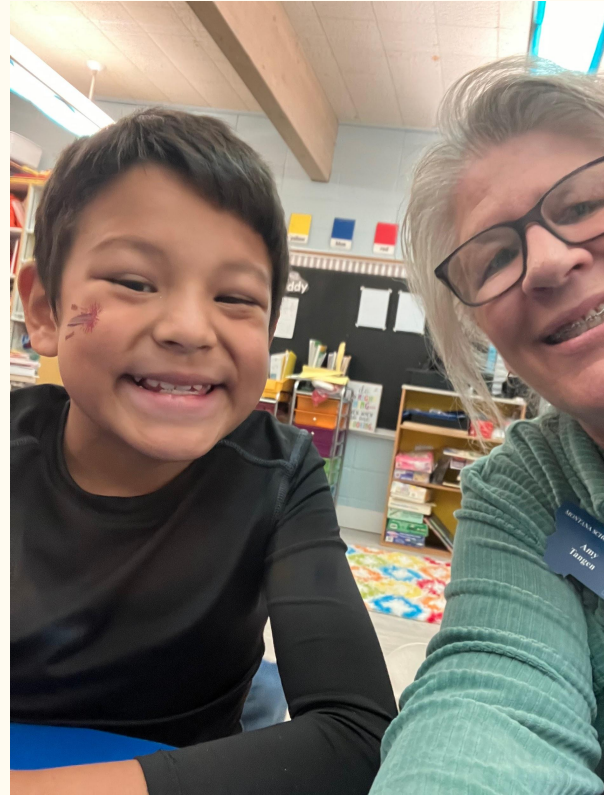
Things to keep in mind while teaching

- use different senses while teaching
- help student be aware of distance events
- include students in all activities
- encourage movement in classroom
- possibly limited access to environment
- promote independence
- same standards as other students
(behavior and academics)



More to consider...

- space, student will have adaptive devices
- foster acceptance
- encourage involvement
- encourage good posture
- consider topics related to VI
- students want to be treated like their peers



Success in the Classroom

How will the student with visual impairments or blindness work in my classroom?

Chapter 3

The results from the Functional Vision Evaluation, Learning Media Assessment & Expanded Core Curriculum Needs Assessment determines the students classroom adaptations and educational implications.



Collaboration

Collaboration with the entire IEP team including the teacher of students with visual impairments (TVI), for completing the appropriate assessments will help determine the best ways for instruction and implementation of specialized materials.

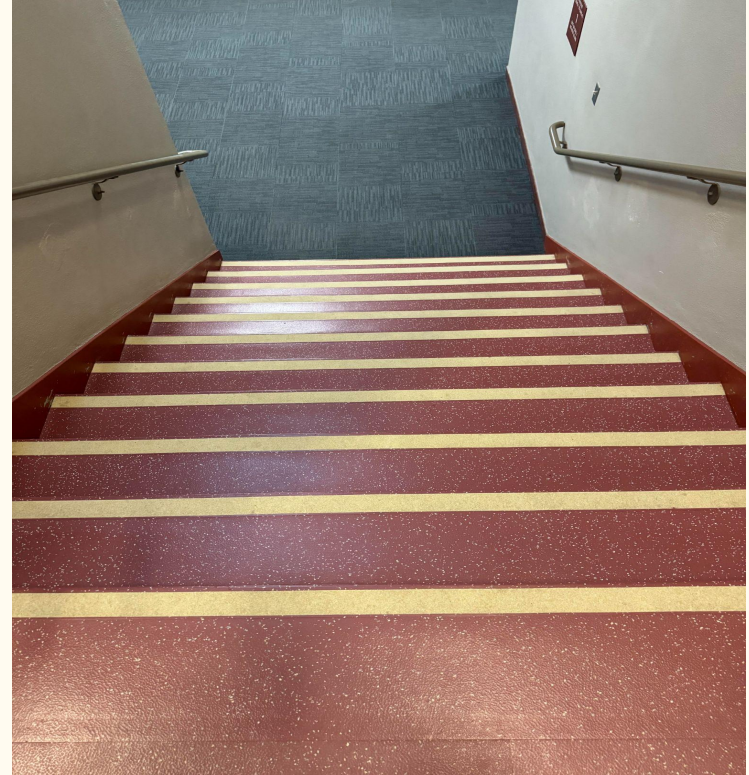
FUN FACT: 7 out of the 8 Outreach Consultants serving students with visual impairments are certified Teachers of Students with Visual Impairments also called TVI or TSVI and 2 have certification as Orientation & Mobility Specialists also called COMS

Environmental Considerations

- Classroom, hallway and other locations
- Contrast & contrast sensitivity
- Lighting & Positioning
- Glare
- Reducing Visual Clutter
- Visual cues for orientation



Contrast and Contrast Sensitivity



Lighting and Positioning

It Depends.....

- Back to windows
- Lighting from above
- Natural light, Fluorescent, LED, incandescent
- Control of light
- Best field of vision depending on the eye condition



Glare



Reducing Visual Clutter







Visual Cues

- Use for orienting to a routine
- Use for concepts of core curriculum



LIBRARY



BUS

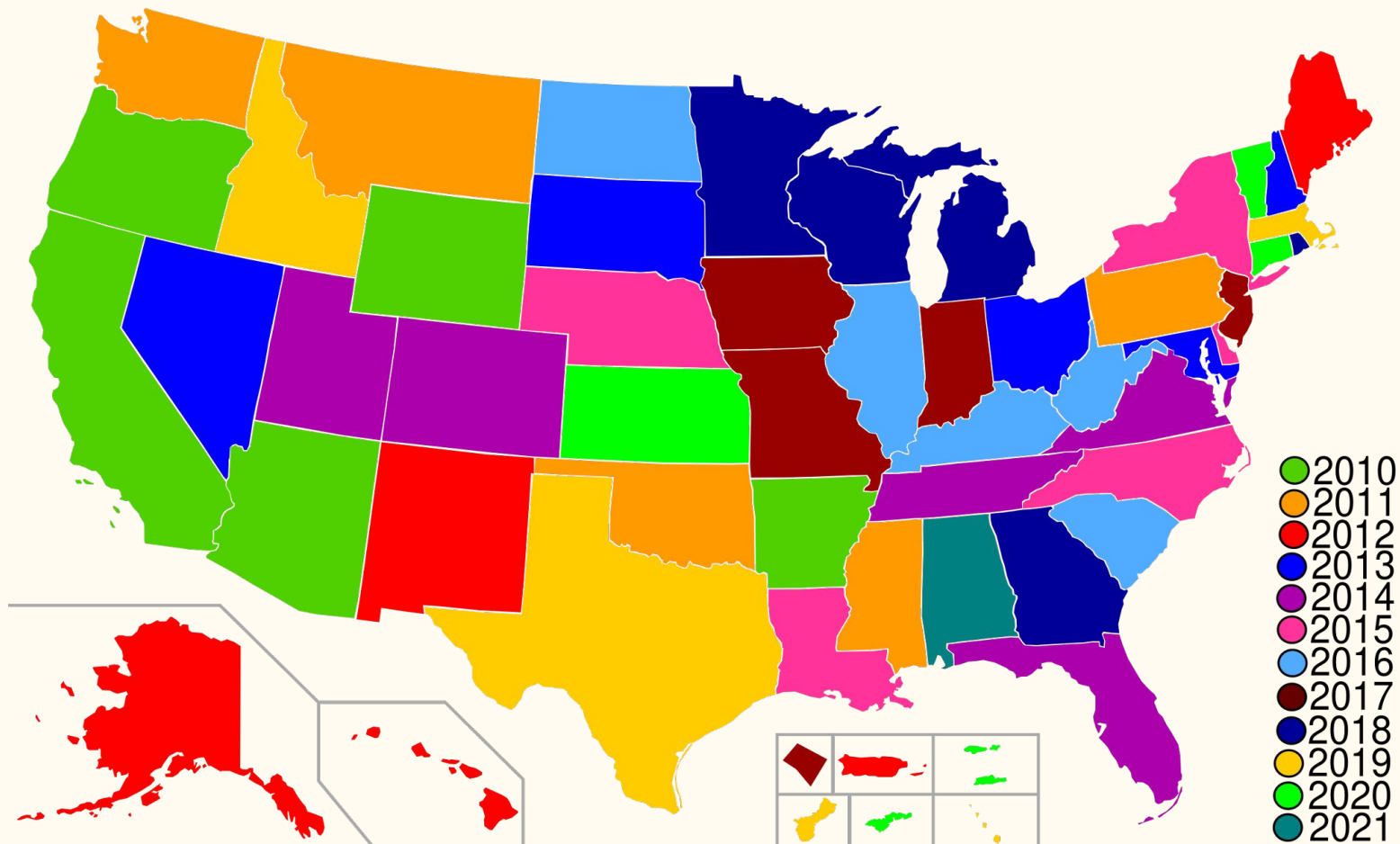


BATHROOM



ART







Large Print and Magnification

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Arial 20 point font

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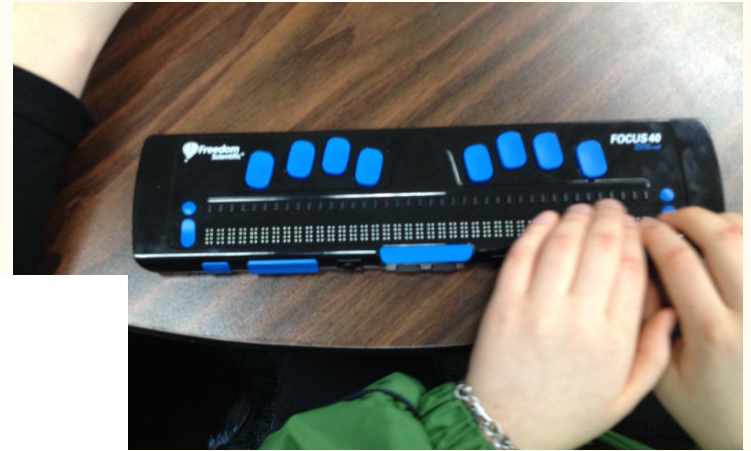
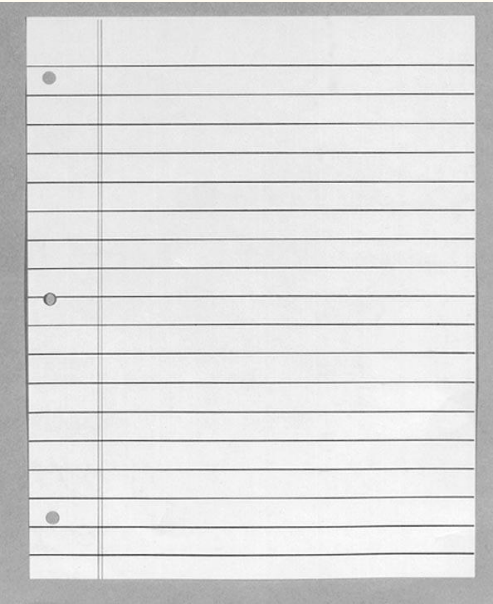
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Braille or Audiobooks



[BOOKSHARE](#)

Writing in the Classroom



Getting around the school campus

How will the student with visual impairments get around the classroom and other areas of the school campus?

Chapter 4

Orientation & Mobility

The results of the Orientation and Mobility (O&M) screening or O&M evaluation will determine the needs for informal instruction or direct related services.



Consideration of Special Factors

CONSIDERATION OF SPECIAL FACTORS		
	Yes	No
Does the student's behavior impede his/her learning or that of others?	<input type="checkbox"/>	<input type="checkbox"/>
Does the student have communication needs?	<input type="checkbox"/>	<input type="checkbox"/>
Does the student require assistive technology devices or services?	<input type="checkbox"/>	<input type="checkbox"/>
Has the student been determined to be an "English Learner"?	<input type="checkbox"/>	<input type="checkbox"/>
<u>Any item above checked "Yes" must be addressed in the IEP</u>		
For a student with blindness or visual impairment	<input type="checkbox"/>	N/A
Does the student need training in orientation and mobility?	<input type="checkbox"/>	<input type="checkbox"/>

Give specific directions and descriptions

Avoid:

“The pencil sharpener is over there.”

Instead use specific descriptive information:

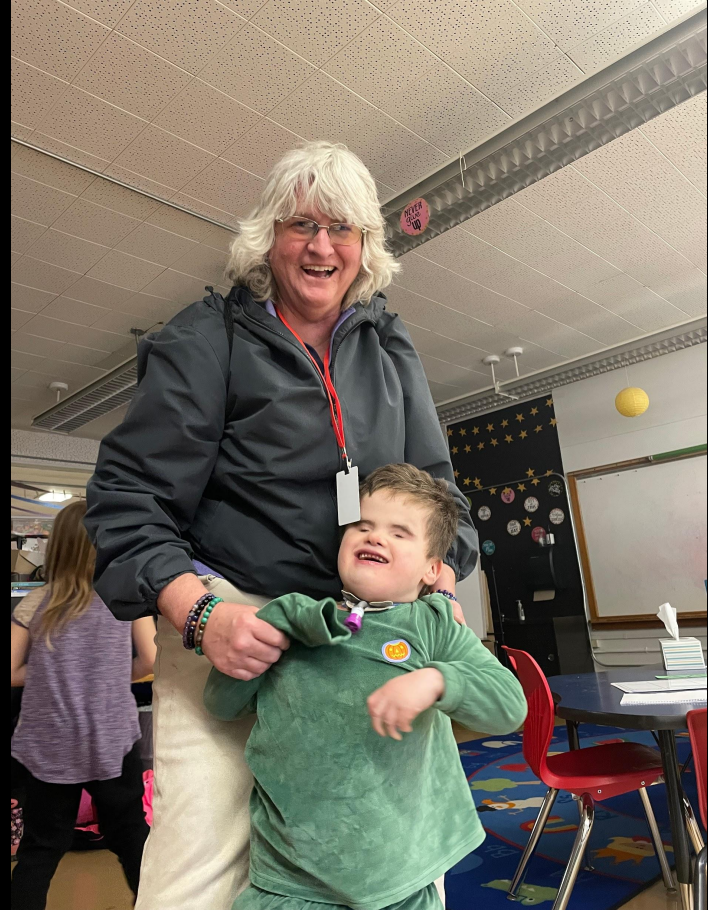
“The pencil sharpener is on the cabinet in the back of the room to the left of the sink. “

General Points to remember:

- ★ Use distinct environmental features as clues for maintaining orientation
 - Ex: a rug placed at the reading center area of the room
- ★ Keep chairs pushed in and keep doors and cupboards closed
- ★ Provide visual contrast to indicate a change in the level of travel surface
- ★ Label the classroom with large print, braille or other tactile or visual symbols
- ★ Minimize changing the layout of the classroom
- ★ Make sure plans are established for fire drills, field trips, and areas outside of the classroom

Formal O&M instruction

Orientation and Mobility refers to the field of instruction designed to teach individuals who are blind or visually impaired to travel safely and efficiently from one location to another.



Hands-on break

Human guide technique

Orientation and Mobility tools

- Kiddie cane, Pre cane, Adaptive Mobility Device, Mobility cane
- Monocular and telescope device
- GPS technology and other applications for travel
- Tactile maps
- Curriculum used by O&M specialists
 - TAPS (Teaching Age-Appropriate Purposeful Skills)
 - Texas 2 STEPS Curriculum and Evaluation Set
 - Finding Wheels: Strategies to Build Independent Travel Skills for Those with Visual Impairments

O&M Fact:

A person must possess confident orientation and mobility skills (travel with a white cane) and have established daily walking to successfully use and support a guide dog

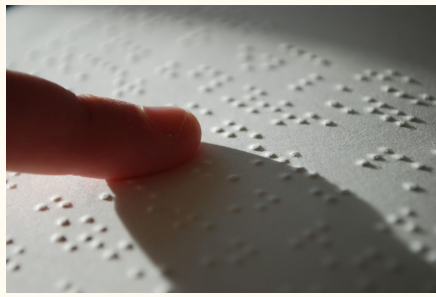
Leader Dogs for the Blind

Additional
Instruction and
Assistance
(Chapter 5)

Expanded Core Curriculum

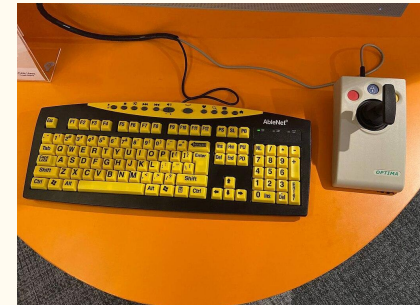
(ECC)

- Subjects that are specific to the individuals learning needs
 - Consists of adapted techniques and alternate ways of completing everyday tasks
-



Categories of the ECC

1. Compensatory
2. Orientation and Mobility
3. Social Interaction
4. Independent Living
5. Recreational and Leisure
6. Career Education
7. Assistive Technology
8. Visual Efficiency



Compensatory/ Functional Academic Skills

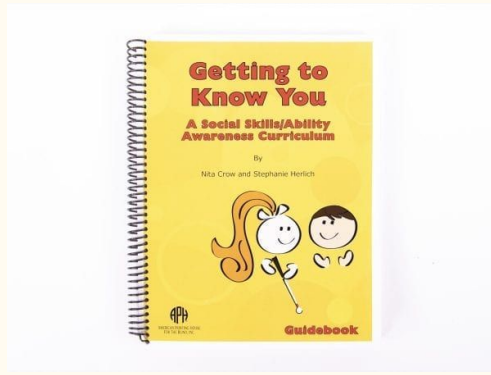
- Concept Development
- Braille Reading and Writing
- Print Reading and Writing
- Listening
- Study & Organizational Skills



Orientation and Mobility Skills

- Ability to move safely, effectively and independently
- Learning:
 - Basic body image
 - Spatial concepts
 - Sensory awareness
 - Travel skills





Social Skills

Interacting with other people is an essential skill.

- Focused instruction
 - Imitation of social behaviors
 - Facial expressions
 - Body language
- Involving them w/ others whenever possible
- Encourage appropriate behavior
 - Looking towards a person when talking
 - Shaking hands
 - Taking turns

Ways to Work on Social Skills

- Use clear and concise language
- Structured interactions
- Clear expectations
- Positive reinforcement
- Peer support

Categories of ECC: Independent Living Skills

Vital for developing:

- Independence
- Feeling of self-worth

Covers everything from how-to's of everyday life, to grooming/hygiene, cooking, organizing, etc.

These skills are often learned through incidental learning by sighted students.

Ways to Develop Independent Living Skills

- Direct, Sequential Instruction (age appropriate)
 - Assisting in classroom routines
 - Classroom job
- Repeated Practice
- Collaboration with families, and other professionals
- Adaptations/techniques
 - Tactile aids
 - Audio description
 - Large print
 - Assistive tech

Independent Living Skills Inventory				
Organization				
1	2	3	4	5
Storing, retrieving toys and supplies at home and school	Organizing closet, cabinets, drawers and pantries at home and at school	Developing and Maintaining the organization of items	Creating digital organization of files, calendars, folders, etc.	Maintaining digital information
Cleaning/Household				
1	2	3	4	5
Putting items away	Age-appropriate chores	Determining the best tool for the job	Create and use a cleaning schedule	Household maintenance
Time Management				
1	2	3	4	5
Understanding order of events	Following a schedule or routine	Estimating time	Creating a schedule, agenda, or planner	Decision making and setting priorities
Cooking				
1	2	3	4	5
Preparing foods	Kitchen basics	Using appliances	Making decisions about food	Advanced kitchen skills
Money Management				
1	2	3	4	5
Knowing various currencies	Making purchases	Banking solutions	Understanding expenses	Develop a personal budget and maintain a financial record

Recreational and Leisure Skills



This is: to rest, relax and enjoy life

Includes: sports, hobbies, board games, activities such as sewing or woodworking

May need to develop:

- Adaptive techniques
- Body awareness
- Spatial orientation



Ways to Develop Recreational and Leisure Skills

- Organize hikes, or nature walks with clear pathways,
- Engage in sensory experiences such as music, movement, or tactile art.
- Utilize assistive tech, audiobooks, magnification
- Group activities such as cooking
- Use a peer buddy to foster social interaction and friendship
- Encourage exploration in adaptive sports: E.g., Goalball

Visual Efficiency Skills

- A teacher of the visually impaired (TVI) will help students and teams discover conditions which they can most effectively use residual vision.
 - This is known as a Functional Vision Evaluation (FVE)
- A TVI can assist in determining which learning medium is most appropriate.
 - Braille, print, or both
- A TVI can help with understanding and using known optical devices.



Supplementary Aids and Services targeted toward Visually Efficiency:

- Seating a student to a certain side of the presentation board
- Provide uncluttered handouts with few or no nonessential images.
- Using slant boards
- Adjusted lighting
- Visual breaks (reduces eye strain/ eye fatigue)

Career Education

“In 2024, 10% of people age 16-64 with vision difficulty were unemployed, compared with 4% of people ages 16-64 without vision difficulty.”

This statistic comes from American Foundation for the Blind “Employment Statistics for People who are Blind or Visually Impaired”



Way to Promote Career Education:

- Begin exploring interests and skills at an early age
- Pre-Employment Transition Services (Pre-ETS)
- Opportunities to practice skills
 - How the skill may apply to a job?
- Organize ways to volunteer at school

Assistive Technology

Computer hardware, software and other equipment that gives students access to the same information.

Assistive technology helps promote self-advocacy by helping students understand and communicate tech preferences

Create a positive attitude toward learning and using AT, emphasize the potential benefits



Best Practice for Assistive Technology

- Focus on functionality when assessing for AT
- Provide hands-on experience and real world application
 - MonTECH
 - Borrow equipment
 - AT Resources
 - Financial Assistance
- Ongoing support
- Collaboration with specialists
 - OT/PT/ TVI/ TOD



Special Devices (Chapter 6)





Eyeglasses

- May be used to improve vision
- Reduce glare or excess light
- May be for indoor & outdoor use
- Light sensitivity (may have tinted or dark lenses)

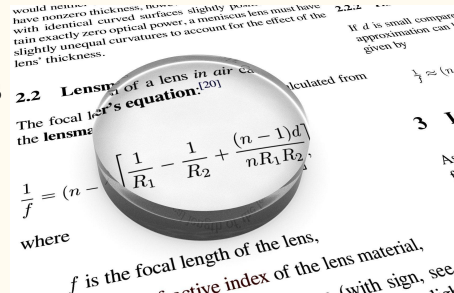
Magnifiers

- Make objects appear larger by increase the size of the image reach the eye
- Types of magnifiers
 - Handheld
 - Mounted to a stand
 - Worn as a loupe over glasses
- Could be used for reading, writing, or things like art

Optical Devices

Telescopes

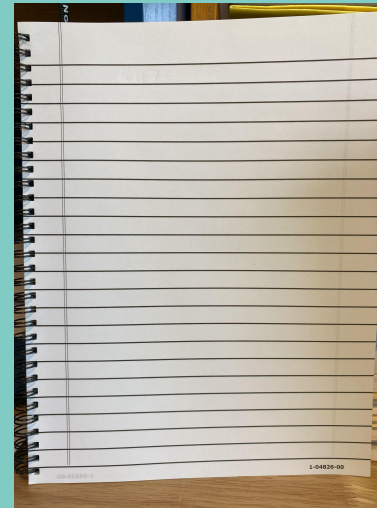
- Small ones may be used to view objects at a distance
 - Dry erase boards
 - Class projects
 - During travel to identify vehicles, street signs, etc
- Can be either handheld or mounted in glasses frames.



Nonoptical Devices

Enhance Functional Vision

- Book Stands/ Slant Boards
- Wide felt-tipped pens and markers
- Colored overlays
- Lamps
- Large-print
- Bold-line paper
- Visor/Hat
- Adapted measurement tools (rules, measuring cups)



Enhancing Tactile Functioning

Braille

- Refreshable Braille Displays (RBD)
- Perkins Brailler
- Slate and stylus

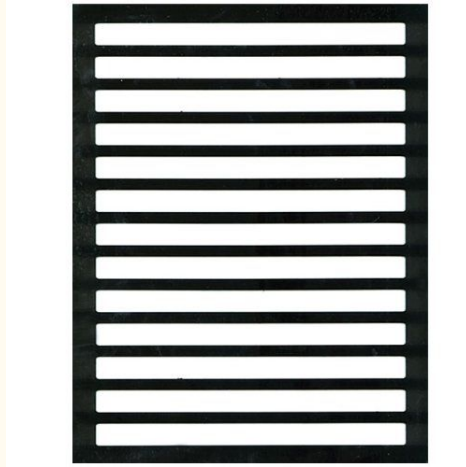
Abacus

Tactile Graphics

Raised-line paper

Writing guides

Tactile Writing Devices



Enhancing Auditory Functioning

Talking Books/Recorded Books/ E-Books

- Bookshare
- Voice Dream Reader

Talking Calculators

Voice Organizers/Records

Audible Gym Equipment



Resources:

American Printing House for the Blind ... <https://www.aph.org/>

MonTECH: <https://montech.ruralinstitute.umd.edu/>

MaxiAIDS: <https://www.maxiaids.com/category/vision-and-blind>

Northwest Association for Blind Athletes: <https://nwaba.org/>

Perkins School for the Blind: https://youtu.be/7R-jR7bxes?si=ImD2LYWYo4P8AV_H

Paths to Literacy - Overview of Orientation and Mobility :

<https://www.pathstoliteracy.org/overview-orientation-and-mobility/>

Leader Dogs for the Blind:

<https://www.leaderdog.org/programs/guide-dog-program/guide-dog-training-faqs/#:~:text=Guide%20dog%20travel%20is%20teamwork,cane%20as%20a%20navigational%20tool.>

Q & A

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