**[Instructional Accommodations:
Making the Learning Environment Accessible to Students with Visual Disabilities](https://iris.peabody.vanderbilt.edu/module/v02-successsight/cresource/q1/p03/)**

**Perspectives & Resources**



**Objectives**

By completing the entire Perspectives & Resources section and reviewing the accompanying activities, the learner will:

* Describe how visual impairments impact learning
* Explain the need for an expanded core curriculum for students with visual impairments
* Identify multiple strategies for altering educational materials and teaching methods for students who are blind and for those who have low vision
* Generate ideas for including and welcoming students with visual impairments into the general education classroom

**Standards**

This IRIS Module aligns with the following licensure and program standards and topic areas. Click the arrows below to learn more.

Council for the Accreditation of Educator Preparation (CAEP)

[CAEP](http://caepnet.org/standards/2022-itp/introduction#content) standards for the accreditation of educators are designed to improve the quality and effectiveness not only of new instructional practitioners but also the evidence-base used to assess those qualities in the classroom.

* **Standard 1:** Content and Pedagogical Knowledge

Council for Exceptional Children (CEC)

[CEC](https://exceptionalchildren.org/sites/default/files/2020-09/Initial%20Preparation%20Standards%20with%20Explanation.pdf#content) standards encompass a wide range of ethics, standards, and practices created to help guide those who have taken on the crucial role of educating students with disabilities.

* **Standard 1:** Learner Development and Individual Learning Differences
* **Standard 3:** Curricular Content Knowledge
* **Standard 5:** Instructional Planning and Strategies

Division for Early Childhood Recommended Practices (DEC)

The [**DEC Recommended Practices**](https://divisionearlychildhood.egnyte.com/dl/7urLPWCt5U/#content) are designed to help improve the learning outcomes of young children (birth through age five) who have or who are at-risk for developmental delays or disabilities. Please note that, because the IRIS Center has not yet developed resources aligned with DEC Topic 8: Transition, that topic is not currently listed on this page.

**Environment**

* **E1.** Practitioners provide services and supports in natural and inclusive environments during daily routines and activities to promote the child’s access to and participation in learning experiences.
* **E2.** Practitioners consider Universal Design for Learning principles to create accessible environments.
* **E3.** Practitioners work with the family and other adults to modify and adapt the physical, social, and temporal environments to promote each child’s access to and participation in learning experiences.
* **E4.** Practitioners work with families and other adults to identify each child’s needs for assistive technology to promote access to and participation in learning experiences.
* **E5.** Practitioners work with families and other adults to acquire or create appropriate assistive technology to promote each child’s access to and participation in learning experiences.
* **E6.** Practitioners create environments that provide opportunities for movement and regular physical activity to maintain or improve fitness, wellness, and development across domains.

Interstate Teacher Assessment and Support Consortium (InTASC)

[**InTASC**](https://www.ccsso.org/sites/default/files/2017-11/InTASC_Model_Core_Teaching_Standards_2011.pdf#content)Model Core Teaching Standards are designed to help teachers of all grade levels and content areas to prepare their students either for college or for employment following graduation.

* **Standard 2:** Learning Differences
* **Standard 7:** Planning for Instruction
* **Standard 8:** Instructional Strategies

National Council for Accreditation of Teacher Education (NCATE)

[**NCATE**](http://caepnet.org/accreditation/caep-accreditation/~/media/Files/caep/accreditation-resources/ncate-standards-2008.pdf?la=en#content) standards are intended to serve as professional guidelines for educators. They also overview the “organizational structures, policies, and procedures” necessary to support them.

* **Standard 1:** Candidate Knowledge, Skills, and Professional Dispositions

# ***What does Ms. Milton need to know about students with visual impairments?***

# **1.** **Basic Needs and Where to Collect Information**

It is natural for teachers, like Ms. Milton, to be nervous about the addition of new students with disabilities with which they have little or no experience. Ms. Milton wants to effectively include them in her general education classroom and teach them the standard curriculum, but she is not sure how to do so. To alleviate her anxiety and build her confidence about including Evan and Emily, she first needs to keep in mind that although they may have some special needs, they are much like the other students in her class. Additionally, she needs to learn more about their disabilities and how to better meet their needs in the classroom. She can do so by consulting the sources of information outlined in the table below.

|  |  |
| --- | --- |
| Student | The student often knows what his needs are. It is important to build rapport with the student so that he feels comfortable expressing his needs. |
| Parents or legal guardians | Because parents  often know their child’s strengths and weaknesses, they may be able to offer information on how to best work with their child. |
| IEP | An individualized education program, or IEP, is a document that describes a student’s strengths and weaknesses, academic goals, instructional and physical accommodations and/or modifications, and a list of additional services and/or assistive technology devices. |
| TVI | The teacher for the visually impaired (or TVI) can help a teacher with instructional materials and suggest strategies for effective learning. |
| O&M specialist | The orientation and mobility (O&M) specialist helps students learn skills to navigate within the classroom and school environment. |

For more information about the roles of the TVI and O&M specialist, please refer to the IRIS Modules:

* [Accommodations to the Physical Environment: Setting up a Classroom for Students with Visual Disabilities](https://iris.peabody.vanderbilt.edu/module/v01-clearview/#content)
* [Serving Students with Visual Impairments: The Importance of Collaboration](https://iris.peabody.vanderbilt.edu/module/v03-focusplay/#content)

# ***What does Ms. Milton need to know about students with visual impairments?***

# **2. What It Means to Have a Visual Impairment**

There is a great deal of jargon associated with visual impairments. *Visual impairment*, for example, refers to any level of vision loss that has an impact on the individual’s ability to complete daily tasks. Used loosely, the term often encompasses both blindness and low vision. Further complicating matters is the fact that individual students with visual impairments have quite different levels of visual functioning, and they use what vision they do have in different ways.

For example, Emily has low vision, which means that she needs to make accommodations such as using large print to read her assignments. On the other hand, Evan is legally blind and requires braille materials. To understand the distinctions between low vision and blindness, review the information in the boxes below.

An individual has *low vision* when he or she has significant loss of vision that cannot be fully corrected by glasses or contact lenses. He or she may be able to use vision to perform daily tasks using the following:

1. Visual strategies
2. Assistive technology
3. Environmental accommodations (e.g., the use of high-contrast materials)
4. Materials in alternative formats (e.g., large print)

An individual is considered blind or functionally blind when he or she uses the tactile or auditory senses most effectively for learning, as opposed to using vision. However, this does not necessarily mean that there is no vision at all. He or she may be able to perform daily tasks using the following:

1. Assistive technology
2. Orientation and mobility skills using a long cane
3. Materials in alternate formats (e.g., braille)
4. Environmental accommodations (e.g., the use of tactile warning strips at edges of stairs)

### Types of Visual Impairments

The sections below describe different types of visual impairments. The type of visual disability an individual has will affect his or her daily functioning and ability to use residual sight. It is important to be able to distinguish the different types of impairment, inasmuch as the distinction may affect the way a teacher structures classroom presentations and communicates information or materials.

#### **Reduced Visual Acuity**

*Visual acuity* refers to one’s clarity of vision. It is measured by a comparison with an established norm, the capacity of people to identify letters at a distance of 20 feet. If one’s visual acuity is 20/20 or is corrected to 20/20 with glasses or contact lenses, one is said to have “normal” vision. The larger the bottom number, the less clearly the individual sees. Thus, 20/200 visual acuity implies a significant loss of clarity. With this level of visual acuity, one would only be able to see the big “E” on the Snellen eye chart from 20 feet away, whereas someone with normal vision would be able to see it from 200 feet away.

Decreased visual acuity results in difficulty seeing detail. In a classroom, this might mean that students experience difficulties with:

* Reading standard-sized print in textbooks and handouts
* Reading signs, posters, bulletin boards, chalkboards, and overheads from their desks
* Seeing faces or identifying familiar people from a distance
* Performing tasks that require color discrimination

To illustrate, the following photos depict “normal” visual acuity and “impaired” visual acuity:

|  |  |
| --- | --- |
| **visual acuity - normal*Normal acuity*** | **visual acuity - impaired*Impaired acuity*** |

#### **Impaired Visual Fields**

Having an impaired visual field is different from having decreased visual acuity, yet both may occur simultaneously. The visual field is the area one can see when looking straight ahead, typically 160 to 180 degrees wide. When a person’s visual field is reduced to 20 degrees or less, he or she is considered legally blind.

To illustrate, the following photos depict “normal” and “impaired” visual fields:

|  |  |
| --- | --- |
| **Normal Visual Field*Normal visual field*** | **Impaired Peripheral Fields*Impaired peripheral fields*** |
| **Impaired Lower Visual Field*Impaired lower visual field*** | **Blind Spots in the Visual Field*“Blind spots” in the visual field*** |

Students who have impaired visual fields may experience problems with:

* Bumping into low objects or people next to them (*peripheral field loss*), causing potential challenges in crowded or busy areas such as the cafeteria or playground
* Missing drop-offs, such as curbs or steps (*peripheral or lower field loss*)
* Seeing straight ahead (*central field loss*)
* Tracking or following moving objects or people, possibly causing the person to bump into others when lining up for recess (*peripheral field loss*)
* Locating items in one’s vicinity, such as finding a dropped pencil or a specific reading passage (*peripheral, central, or lower field loss*)

MYTH – People who are blind can’t see anything.
 It is a common belief that all blind people “live in a world of total darkness”;
 however, it is estimated that 9 out of 10 people who are considered blind or
 functionally blind have some functional vision (for example, they might see light
 or the outline of objects).

MYTH – Sitting close to the television will harm your eyes.
 There is no evidence that sitting close to the television will harm vision. In fact,
 many students with low vision need to sit close to the television to view it.

MYTH – Reading for long periods of the time or in dim light can damage your eyes.
 Reading in dim light or for long periods can cause eye fatigue, but these activities will not
 damage your eyes.

# ***What does Ms. Milton need to know about students with visual impairments?***

## **3. How Visual Impairments Impact Learning**

Now that Ms. Milton better understands the visual functioning that Evan and Emily experience in their daily lives, she feels more prepared to include them in her classroom. Still, she wonders how having visual disabilities will affect the ways in which Evan and Emily will learn new concepts and skills. She is especially concerned about how Evan, who is blind, will learn about things that he cannot see. Ms. Milton is also concerned about how she will present new concepts and how these accommodations might affect her lesson plans and teaching style.

### Concept Development

Concepts are ideas or mental images created through interactions in an environment. The understanding of specific concepts is developed through a process of classifying or grouping similar things (e.g., beagles, poodles, and golden retrievers are all dogs) and through discriminating categories of concepts (e.g., dogs are not cats). Children often learn new concepts naturally through:

* Direct interaction
* Observation
* Reading
* Pictures
* Television
* Verbal explanations

### Impact of Visual Impairment on Concept Development

Understanding how visual impairments impact concept development will help Ms. Milton teach Evan and Emily more effectively. Some researchers estimate that 90% of what young children learn is acquired through visual experiences. Now that Ms. Milton has learned something about Evan’s and Emily’s visual abilities, she can focus on effective ways to present information that would otherwise be learned visually.

**Teaching students with visual disabilities can be challenging for 3 reasons.**

**For one**, students with sight learn simply by observing the world around them (e.g., watching fireworks bursting or birds flying). This is known as *incidental learning*. Similar concepts must be directly taught to children with visual impairments.


**Second**, vision enables individuals to quickly take in a lot of information and gather the whole picture. On the other hand, learning through touch, which is sometimes the primary method for visually impaired children, requires students to first learn about the parts before putting them together to create the full entity (e.g., looking at a tree instead of touching its leaves, branches, or bark). This is known as *part-to-whole learning*.

**Lastly**, some environmental concepts that are easily observed are typically unavailable for children to touch due to physical access or safety issues (e.g., elk in the zoo). In such cases, teachers may have to rely on a combination of verbal explanations, realistic models, books about the particular animal, and other related experiences (e.g., a trip to a natural history museum to touch a preserved animal).

Ms. Milton must keep in mind that **children who are blind or have low vision use other sensory information to learn about the world around them.**

### Strategies to Support Concept Development

Teachers can support conceptual learning for students with visual disabilities by providing meaningful opportunities for hands-on interactions with real items. For example, during geography lessons, a topographic globe for Evan and Emily would be a helpful learning tool. Likewise, when teaching money concepts, she should use real money because of its true texture, weight, and feel, rather than using imitation currency.

## **Activity**

The 1999 MGM film *At First Sight* features Val Kilmer as Virgil, a man who is blind and who—at the prompting of his girlfriend Amy (Mira Sorvino)—undergoes surgery to regain his sight. Take two hours to watch the film, and then discuss how it portrays blindness, Virgil’s compensatory skills, and the other characters’ reactions to Virgil’s visual disability.

# ***What does Ms. Milton need to know about students with visual impairments?***

## **4. The Need for an Expanded Core Curriculum**

Having read Evan’s and Emily’s IEPs, Ms. Milton has learned that they will take part in the same core curriculum (e.g., language arts, mathematics, social studies) as their sighted classmates. Ms. Milton has also learned that Evan and Emily have additional instructional needs because of their visual disabilities. These added areas of instruction, commonly referred to as the Expanded Core Curriculum for students with visual impairments, are outlined below:

### The Expanded Core Curriculum

* Compensatory skills, or functional skills, including communication modes (e.g., braille, large print, abacus)
* Orientation and mobility skills
* Social interaction skills
* Independent living skills (e.g., personal hygiene, food preparation, money management)
* Recreation and leisure skills
* Career education and professional skills
* Assistive technology skills
* Visual efficiency skills (i.e., the extent to which available vision is used effectively)

Competency in the core curriculum subjects is needed for academic success. Additionally, competency in the expanded core curriculum subjects is needed if students with visual disabilities are to enjoy a rich, fulfilling adult life.

Listen to Phil Hatlen discuss the general education teacher’s role in delivering the Expanded Core Curriculum.

*Phil Hatlen*
*Superintendent*
*Texas School for the Blind and Visually Impaired*
Scan QR Code for Audio Player (time: 1:29)
[View Transcript](https://iris.peabody.vanderbilt.edu/module/v02-successsight/cresource/q1/p04/javascript_required.html)

### Delivering the Expanded Core Curriculum

Educational time must be allocated to teach the skills outlined in the expanded core curriculum and to allow students with visual impairments to master these competencies. This means that students might need some separate pull-out instruction for skills such as practicing orientation and mobility, reading braille, and using assistive technology. All of this may require a substantial amount of time, so Ms. Milton must be willing to collaborate with other educational professionals to schedule this additional instruction and to allow students time to make up any missed classwork. For all of this to take place, there must be a high level of commitment among the student, the parents, the school leaders, and other relevant educational professionals.

**Addressing Evan’s Expanded Core Curriculum**

At Evan’s IEP meeting, his parents explain that they have begun giving him a weekly allowance to keep his room neat and clean; however, they are concerned that Evan won’t be able to distinguish the different coins and bills he has earned. They are also concerned that Evan won’t have the typical opportunities enjoyed by other kids his age to spend his money on small purchases. Ms. Milton replies that she has just completed a math unit on money and is certain that Evan knows the values of different coins and bills. He is able to accurately add and subtract money values—this provides the first step for meeting his goals. The TVI says that if Evan’s parents are willing to purchase a wallet for their son, Ms. Milton will teach him a system for folding bills for identification and how to identify different coins. The O&M specialist adds that community lessons could easily be structured to provide opportunities for a wide variety of business transactions, including small purchases. Evan excitedly states that he is saving part of his allowance for a CD and that he would really like to purchase it during an O&M lesson.

# ***What should Ms. Milton consider when creating lesson plans to ensure the inclusion of Evan and Emily?***

## **5. Educational Materials**

Before school began, Ms. Milton spent a lot of time preparing group-oriented, hands-on activities for her students, and was very excited about implementing them. Now, however, she wonders whether Evan and Emily will be able to participate in all of these activities. Ms. Milton must realize that it is perfectly reasonable for her to expect Evan and Emily to participate in the lessons and activities that she has prepared, as long as she is willing to make changes to the educational materials that she plans to use.

The TVI is usually the person responsible for making changes to instructional materials to ensure that students with visual disabilities have full access to the content presented in class. It is critical that the general education teacher work closely with the teacher of visual impairments. The TVI will assess each student with a visual impairment to make individual determinations about which accommodations for instructional materials will be most appropriate. The teacher and the TVI should develop a plan for when and how the teacher will provide the lesson materials to the TVI so that he or she can make the necessary changes. It is important to ensure that the TVI will have enough lead-time to make or otherwise obtain the appropriate materials. It is also important to keep in mind that some types of material alterations may require more time than others.

Listen as Anne Corn discusses the importance of collaboration between the general education teacher and the TVI.

*Anne Corn, EdD*
*Professor Emeritus*
*Vanderbilt University*

(time: 0:50)

Scan QR Code to for Audio Player

[View Transcript](https://iris.peabody.vanderbilt.edu/module/v02-successsight/cresource/q2/p05/javascript_required.html)

The changes the TVI usually makes are referred to as *accommodations*. An accommodation is an alteration to the material (e.g., an assignment, a test) that helps a student to fully access the standard curriculum and demonstrate what he or she has learned. For example, Ms. Milton can ask the TVI to enlarge her classroom handouts to accommodate Emily’s needs.

### Instructional Materials

****Accommodations may be made to allow students access to instructional materials through the visual, tactile, or auditory senses. The type of accommodations made will be determined by the TVI (based on information and recommendations in the IEP) and will vary depending on the needs of the individual student.

Visual

The purpose of visual accommodations is to enlarge print materials, to increase the contrast and clarity of print materials, or to decrease glare and visual clutter to make items easier to view. The teacher can make these changes directly to the materials or students can achieve the changes using devices in class.

Examples:

* Enlarged or high-contrast print materials (e.g., text, handouts, pictures, graphs, diagrams)
* High contrast writing supplies (e.g., dark felt-tip pens for the student to use when completing assignments or for others to use when creating written materials for the student)
* Contrast-enhancing aids (e.g., colored acrylic sheets that can be laid over print materials)
* Large-print text books and materials (e.g., handouts, worksheets)
* Magnified materials (e.g., using devices such as a closed-circuit television (CCTV) or hand-held magnifiers)
* Increased proximity to print materials (e.g., using devices such as reading stands)
* Additional task lighting
* Glare-reduction devices (e.g., sunglasses or visors indoors)

One can also reduce visual clutter on handouts by providing plenty of space between pictures or words, limiting the use of unnecessary graphics, and putting fewer items and less text on a page. The same considerations can be used for overhead presentations and chalkboard information.

### hand

### Tactile

Typically made for students like either Evan or Emily (who are blind or who have low vision), these accommodations allow for access to print materials and enable students who are blind to learn about their environment.

Examples:

* Transcribing print materials (e.g., text, handouts, tests) into braille
* Making tactile representations (e.g., with raised lines or raised dots) of maps, graphs, diagrams, and simple pictures
* Using three-dimensional models (e.g., model trains, human skeletal systems, models of the human eye)
* Providing actual hands-on experiences with real objects versus providing pictures or toys (e.g., using real fruits instead of pictures or toy fruits)

One can also reduce visual clutter on handouts by providing plenty of space between pictures or words, limiting the use of unnecessary graphics, and putting fewer items and less text on a page. The same considerations can be used for overhead presentations and chalkboard information.

### auditory

### Auditory

In addition to visual or tactile materials, some students with visual impairments may benefit from materials provided in an auditory format. Holbrook and Koenig (2002) suggest, however, that careful consideration of the use of auditory materials is needed. Teachers should maintain a balance between the use of auditory materials and print or braille materials, so that the development of reading and writing skills won’t be compromised.

Examples:

* Books on audiotape or in an electronic format (e.g., a computer with speech synthesizer software)
* Teacher-made tape recordings of handouts or text materials
* Student tape-recorded responses to assignments or test questions
* Audio descriptions of visual information presented on videos by the teacher, aide, or classmates
* Descriptive videos (i.e., videos that have narrated descriptions of the visual content), versions of which are available for several commercial movies

### Assignments and Tests

Evan’s and Emily’s IEPs will indicate the accommodations to assignments and tests that they may require. The TVI will be the primary resource for assisting Ms. Milton in making these accommodations as needed. The type of accommodations implemented will vary depending on individual students’ needs and may include any or all of the following:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Light BulbSETTING | ClockTIMING | clipboardSCHEDULING | laptop computerPRESENTATION | speakerRESPONSE |
| Change the location; for example, allow the student to go to a quieter or better lit room. | Allow the student extended time or to take frequent breaks. | Schedule only during a specific time, such as when the TVI is available to act as a scribe. | Change the format or the presentation of materials; for example, use large print or an assistive device such as a computer. | Change how the student responds; for example, allow a recorded response. |

# ***What should Ms. Milton consider when creating lesson plans to ensure the inclusion of Evan and Emily?***

## **6. Instructional Methods Inside the Classroom**

Now that Ms. Milton has learned about working with the TVI to alter classroom materials for Evan and Emily, the next step is to learn how to adjust her instruction. It is important to consider how students with visual impairments will perceive the information being taught. It may be necessary for the teacher to make some minor adjustments in the instructional presentation so that students with visual disabilities will have the same opportunity to follow visually presented information.

For example, *before the lesson begins*, the teacher should consider the materials he or she will be presenting on the board or with an overhead and do one of the following:

* Ask the TVI to enlarge or convert the pictures, diagrams, and graphs that will be shown on the chalkboard or screen.
* Ask the TVI to convert to the appropriate reading medium the key points that will be written on the board or overhead.

Furthermore, *during the lesson*, the teacher should consider the suggestions below:

Read aloud what is written (or being written) on the chalkboard and overhead projections.

* Describe all pictures, diagrams, and graphs shown on the board or overheads.
* Invite students with low vision to reposition themselves as needed for an unobstructed, closer, or glare-free view of the chalkboard or overheads.
* Encourage students to use low-vision devices as appropriate.

## **For Your Information**

Here are some other helpful suggestions for how to present visual materials to students with visual disabilities:

* Experiment with different combinations of high-contrast markers against the white board (or chalk against the blackboard) to aid the students’ viewing of material written on the board.
* Consider writing on flip-chart paper attached to the board so that it can later be given to students with low vision for closer inspection.
* Try repositioning the overhead projector to find the most helpful size of print projected on the screen.

### Classroom Demonstrations

Teachers often use demonstrations or modeling during instruction so that students are able to watch and imitate new skills. However, as traditionally used, these instructional strategies rely heavily on students’ ability to see. Some students with low vision may be able to follow demonstrations and modeling of new skills by simply moving closer to the teacher or by using their low-vision devices as appropriate. Other students with visual impairments will require more creative teaching approaches to ensure that they are on equal ground with their sighted peers.

Below are several ideas that teachers can use to adjust instructional practices while using demonstrations and modeling:

* Describe each step of the activity in detail while doing it.
* Make the materials available for the students to explore before and after the demonstration.
* Use multi-sensory approaches that encourage students to use all of their senses in learning.
* Use hand-over-hand instruction to teach the motions of a new skill; for example, the teacher might ask a student to place his or her hands over hers as she demonstrates how to pour liquid into a test tube.

In all cases, it is a good idea to ask questions while demonstrating and/or modeling to assess students’ understanding of the content being presented.

#### **Audio-Visual Presentations**

More and more, teachers use movies, CD-ROMS, slides, and other forms of media to present information. To make these materials equally accessible to students with visual disabilities, teachers need to describe verbally what others are seeing. It is best to start by giving a general description of what is happening in the media presentation and then provide details as time allows.
**Keep in Mind**

* While describing key visual points, teachers should make certain that their descriptions do not interfere with the information in the audio-visual presentation.
* Students with visual impairments may be unfamiliar with some of the concepts being described. Teachers may need to provide additional explanations and learning experiences afterward if their students are to fully understand what is being depicted in the presentation.
* Teachers may find it beneficial to ask the TVI to observe while they describe visual information in class and to offer feedback.

## **Activity**

Describing visually presented information is a skill that takes time to master. Though it may seem difficult and unnatural at first, the more you practice, the easier it will become. Here is an opportunity to practice this skill.
Imagine that you are a fifth-grade general education social studies teacher. You are teaching your students about the history of space exploration. Identify a few key aspects of the photo to the right that would be important to describe for students with visual impairments. Then jot down how you would describe the picture.

**List of possibilities.**Which concepts and details did you list as important to mention to students who have visual disabilities? Did you mention:

* That he’s wearing a bulky white space suit and helmet?
* The moon? And craters? That the moon’s surface looks like soil?
* That this is a photo of Neil Armstrong, the first many to set foot on the moon?
* That he’s standing up and facing the camera?
* That the sky is black?
* That the photo is mostly black and white, with the exception of the U.S. flag on the shoulder of the astronaut’s suit?

# ***What should Ms. Milton consider when creating lesson plans to ensure the inclusion of Evan and Emily?***

## **7. Events Outside of the Classroom**

After learning about accommodations for the classroom, Ms. Milton has gained confidence in her ability to teach Evan and Emily, but she still has a few doubts and questions about activities or events outside of the classroom. Although these are natural concerns, Ms. Milton should be assured that many students with visual impairments learn to navigate independently both at school and in the community. The orientation and mobility (O&M) specialist can provide initial orientation within the school environment and also opportunities to practice these skills (referred to as travel skills) within the community.

### Navigating the School Environment

For students with visual disabilities, the school environment can at first be confusing to navigate. In particular, school cafeterias can prove crowded, noisy, and confusing environments. There are lines to manage; cups, utensils, and tables to find; and trays of food and drink to carefully balance. Another area that presents challenges is the hallway, especially during classroom changes. The O&M specialist helps students to master the necessary travel skills for such areas in the school.

Until students are fully familiar with the different aspects of the school environment, it is important to consider the following tips:

* Provide clear and specific verbal directions.
* Request that cafeteria staff alert the students to obstacles or changes in the locations of tables, trashcans, and other objects.
* Ask playground supervisors to keep an eye out for students with visual impairments in particularly hazardous areas, such as near the swings or at the bottom of the slide.
* Use human guide techniques.

Brenda Naimy describes how to use the human guide technique.
Scan the QR Code to access audio.

Audio Player

#### **Human Guide Techniques**

Human guide techniques enable an individual to safely escort a person with a visual impairment in unfamiliar surroundings. The orientation and mobility (O&M) specialist will be able to provide training in use of human guide techniques for students and adults in the classroom. Below you will find directions for basic human guide techniques.

#### **Initiating contact**

Ask the student if he or she would like to be guided. If the student does, touch the back of his or her hand so that the student can establish the proper grasp of the guide’s upper arm.

#### Proper grasp**Proper Grasp**

The student should grasp the guide’s upper arm, just above the elbow, with his or her fingers on the inside of the guide’s arm and the thumb on the outside. If the traveler is younger or smaller and cannot reach the guide’s arm, he or she may instead take hold of the guide’s wrist or even the index and middle fingers.

**Proper Body Position**

Both the guide and the student should hold their upper arms close to their bodies. This will automatically position the student one-half step behind the guide so that he or she can follow the guide’s body movements.

#### **Changes in Surface or Elevation**

The guide should offer verbal cues (descriptive information) whenever there are:

* Changes in ground surface, such as uneven sidewalk areas, slopes, or drop-offs (e.g., curbs, steps)
* Stairs
* Changes in direction
* Other irregularities that the student may encounter

Eventually, the guide and the student may be able to phase out the need for some verbal cues; however, it is better to err on the side of providing too much information as opposed to too little.

#### **Stairs**

* The guide should always approach stairs directly, never at an angle.
* The guide should stop at the edge of the first step and be sure to cue the student that he or she is approaching stairs. The guide should also let the student know whether he or she will be ascending or descending.
* The student may feel more comfortable if he or she is positioned to hold the handrail as he or she travels up or down the stairs.
* The guide should ascend or descend first, and the student should follow one step behind.
* When the guide reaches a landing (the top or bottom of the stairs), he or she should alert the student and then cue the student that there is one step left.

**Narrow Areas**

When approaching a narrow area (e.g., a doorway, or crowded area), the guide should provide the student with a verbal cue (e.g., “It’s narrow here.”) When passing through the narrow area, the guide should move the arm the student is holding behind the guide’s back, thus directing the student to move directly behind the guide.

**Doors**

Guides should keep in mind to alert students:

* That he or she is approaching a door
* How the door opens
* That the door opens “toward us” or “away from us”
* That the door opens “to the right” or “to the left”

The guide will need to open the door and enter first, and the student should follow through the door behind. When possible, the student should assist both in holding the door open and in closing it.

### Preparing for Emergencies

Students with visual impairments should participate in all school emergency drills. If appropriate, additional one-on-one instruction from the O&M specialist may be provided until they are familiar with emergency procedures and escape routes from all areas of the school. In emergency situations, students with visual disabilities should be partnered with “emergency buddies” in each of their classrooms. The emergency buddy may be a classmate or an adult—depending on the age of the student—who will locate him or her during an emergency and use human guide techniques while following appropriate emergency procedures.

### Travel Beyond the School Environment

When teachers make plans for field trips, they usually find it worthwhile to research the availability of accommodations for individuals who are visually impaired:

* Sites may have braille materials available on request.
* Museums may offer audio descriptions of their exhibits.
* Museums may allow visitors to touch and explore certain displays.
* Theatres may provide small, individual FM radio systems to allow listeners to hear descriptions of actions, body language, lighting, costumes, and scenery during pauses in the dialogue on stage.

Other accommodations that allow students with visual disabilities to fully participate in fieldtrip activities may include:

* Securing seats near presentations, stages, and movie screens for easier viewing
* Ensuring an unobstructed view of the stage or screen so that students can use low vision aids if needed
* Pairing with friends who can provide descriptive information as necessary
* Arriving early, before the lights are dimmed, for easier mobility
* Using a flashlight for additional illumination
* Orienting students to the environment prior to the event
* Using human guide techniques

## **Puzzle outlineActivity**

Contact your school district’s O&M specialist or TVI and request an opportunity to walk with him or her while you wear a blindfold. Not only will you develop a better understanding of what it feels like to be guided but you will also likely become a more sensitive and careful guide.

# ***How can Ms. Milton facilitate Evan’s and Emily’s social adjustment?***

## **8. Common Courtesy and Effective Communication**

During the process of learning about instructional considerations for Evan and Emily, Ms. Milton discovers that it is also important to facilitate Evan’s and Emily’s social interactions and peer acceptance in the classroom. This process need not be a difficult one. Ms. Milton can implement and suggest to her students a number of tips to help Evan and Emily in the classroom.

### Communication Tips

Listed below are a few things that teachers should keep in mind when communicating with students with visual disabilities.

* When approaching a student with a visual disability, one should state one’s name or speak until the student recognizes the speaker. (*For example, “Hi, Evan, this is Ms. Milton. I need you to let me know…*“)
* One should alert the student to one’s impending departure; otherwise, the student might continue talking even after the teacher has left.
* Do not consciously avoid using words such as “look” and “see, ” for these are part of everyday conversation.
* When giving directions, be precise and be sure to give adequate information. (*For example, “Paul is seated two desks to your right.*“) Avoid pointing at objects or using vague phrases such as “over there.”
* Consider using verbal forms (e.g., “nice job”) or physical forms (e.g., a pat on the back) of praise, instead of visual forms (e.g., a smile) when acknowledging students with visual impairments.

### Courtesy Tips

To make certain that students with visual impairments are not unintentionally excluded from either academic or nonacademic classroom activities, it is important to remember to provide verbal descriptions of what others see. For example, when Susie makes a funny face and everyone laughs, someone should describe the event. Likewise, written information such as notices on the walls may need to be read aloud to inform students of what is happening in the larger school environment (e.g., school dances or flyers for class president elections). Additionally, it is important for teachers and students to remember the following.

|  |  |
| --- | --- |
| **Do** | **Don’t** |
| Speak in the students’ native language | Use sign language |
| Speak in a normal tone of voice | Talk loudly to the students |
| Ask whether a student needs assistance and then wait for him or her to take your arm | Take a student’s arm and lead him or her |
| Keep furniture in consistent places | Move objects around without warning |
| Have high expectations for students with visual disabilities | “Dumb down” your speech or expect less |
| Inform the students verbally of schedule changes or room assignments | Make unexpected or unannounced changes |
| Tell the students when something is being handed to them or put on their desks | Hand students items or place things on their desks without their knowledge |
| v02_08b_dogIgnore guide dogs when they are working (i.e., when wearing harnesses) | Play with guide dogs |

Listen as Vanderbilt Professor Anne Corn describes some basic considerations for communicating with students with visual disabilities.

*Anne Corn, EdD*
*Professor Emeritus,* *Vanderbilt University*

Scan QR Code for audio. (time: 0:25)

Audio Player

[View Transcript](https://iris.peabody.vanderbilt.edu/module/v02-successsight/cresource/q3/p08/javascript_required.html)

# ***How can Ms. Milton facilitate Evan’s and Emily’s social adjustment?***

## **9. The Development of Social Skills**

Ms. Milton recognizes that it is very important that Evan and Emily feel included in all class activities and that they are able to make friends within the class. The importance of being accepted by one’s peers and included as part of the class cannot be understated. Ms. Milton can facilitate classroom relationships by doing the following:

* Introduce students with visual disabilities as she would any students.
* Be sensitive and discreet and respect the students’ degree of adjustment to their visual disabilities and their level of comfort when discussing it with others.
* Encourage the students to provide direct answers when others ask questions about their visual impairments if they are comfortable discussing it.
* To promote independence, allow the students to rely on themselves whenever possible.
* Encourage the students to ask for and accept assistance for certain tasks. In addition, to foster good peer interaction and a feeling of self-worth, the students should be encouraged to offer assistance to others.
* Be a role model. Like all students, students with visual disabilities are sensitive to teasing from their peers. The teacher’s acceptance of the students will provide a positive example for the class.

Additionally, students with visual impairments are sometimes unaware of social conventions. For example, they may turn away from someone who is speaking to them. Therefore, it may be beneficial to infuse basic social-skills instruction as part of the daily routine for the entire class, since these are skills that all students use in social interactions. When deciding whether social-skills instruction is necessary, it is helpful to assess the students’ present level of social functioning, including an appraisal of their peer interactions. Such an assessment may include information from the TVI and the students’ families.

Some interventions may be as simple as encouraging students to face others when they are speaking. Other skills may require the teacher to use a more systematic approach. It is important to recognize that it may be overwhelming for students with visual impairments to address all needed skills at once. Therefore, the teacher should choose to work on one or two skills at a time. See the table below for social deficits that students with visual disabilities often exhibit and possible strategies for addressing them.

|  |
| --- |
| Skills that Enhance Social Integration |
| **Skill** | **Strategy** |
| Direction of eye gaze | Encourage students to face people when speaking to them and to maintain “eye contact” when possible. |
| Relaxed but erect body stance | Prompt and reinforce students to have upright posture, to sit up, to keep their chins up, etc. |
| Positive initiations | Suggest ways the students can ask others to play a specific game or participate in an activity during recess, etc. |
| Sharing in group activities | Make the students aware of school and community opportunities for participation, such as band, drama club, team sports, dances, and academic clubs. |
| Eating etiquette | Teach and reinforce the students’ appropriate posture, their use of utensils and napkins, their chewing with mouths closed, etc. |
| Interpreting verbal and non-verbal cues | Provide direct instruction on how to recognize the emotional overtones in people’s voices and how to use and respond to common gestures. |

# ***Resources***

## **10. References & Additional Resources**

*To cite this module, please use the following:*

The IRIS Center. (2005). *Instructional accommodations:* *Making the learning environment accessible to students with visual disabilities*. Retrieved from
[https://iris.peabody.vanderbilt.edu/module/v02-successsight/](https://iris.peabody.vanderbilt.edu/module/v02-successsight/#content)

### References

Beadles, R. J. (2000, February). IDEA final regulations on assessments [Electronic version]. *Howe’s Now, 5*(1). Retrieved July 11, 2005, from [http://www.tsbvi.edu/cosbnews/Apr2000/apr2000.rtf](http://www.tsbvi.edu/cosbnews/Apr2000/apr2000.rtf#content)

Bell, J., & Siller, M. A. (2002). *Living with low vision*. Retrieved July 11, 2005, from,[http://www.afb.org/Section.asp?SectionID=26&TopicID=144](http://www.afb.org/Section.asp?SectionID=26&TopicID=144#content)

Browning Wright, D. (1999). Implementing IDEA ’97 – *IDEA definitions: Adaptations,* *accommodations, and modifications [Electronic version]. NASP Communiqué,*28(4). Retrieved July 11, 2005, from
[http://www.nasponline.org/publications/cq284definitions.html](http://www.nasponline.org/publications/cq284definitions.html#content)No longer available.

Candler, L. (2005, January 12). *Cooperative Learning: Social skills T-chart*. Retrieved July 11, 2005, from [http://home.att.net/~clnetwork/clfiles.htm](http://home.att.net/~clnetwork/clfiles.htm#content)

Cole, R. J. (2002, March 25). *FAQ in low vision rehabilitation*. Retrieved July 11, 2005, from [http://www.californiaeyemds.org/displaycommon.cfm?an=3](http://www.californiaeyemds.org/displaycommon.cfm?an=3#content)

Fazzi, D. L., & Petersmeyer, B. A. (2001). *Imagining the possibilities: Creative* *approaches to orientation and mobility instruction for persons who are visually impaired*. New York: AFB Press.

Ferrell, K. A. (1996). Your child’s development. In M.C. Holbrook (Ed.), *Children* *with visual impairments: A parent’s guide*. Bethesda, MD: Woodbine House.

Hatlen, P. (2002, July 30). *The core curriculum for blind and visually impaired* *students, including those with multiple disabilities*. Retrieved July 11, 2005, from [http://www.tsbvi.edu/agenda/corecurric.htm](http://www.tsbvi.edu/agenda/corecurric.htm#content)

Huebner, K. M. (2002, July 30). *The expanded core curriculum: Finding the time*. Retrieved July 11, 2005, from [http://www.tsbvi.edu/agenda/core-ppt.htm](http://www.tsbvi.edu/agenda/core-ppt.htm#content)

Koenig, A., & Holbrook, M. C. (Eds.). (2000). *Foundations of education: Instructional* *strategies for teaching children and youths with visual impairments* (2nd ed.). New York: AFB Press.

Koga, N., & Hall, T. (2004). *Curriculum modification*. National Center on Accessing the General Curriculum. Retrieved November 16, 2005, from [https://www.cast.org/publications/ncac/ncac\_curriculummod.html](https://www.cast.org/publications/ncac/ncac_curriculummod.html#content)

Prevent Blindness America. (2004). *Common eye myths*. Retrieved July 11, 2005, from [http://www.preventblindness.org/eye\_problems/eye\_myths.html](http://www.preventblindness.org/eye_problems/eye_myths.html#content)

Rooney, K. (Ed.). (1999). *The Encarta world English dictionary* (British ed.). London: Bloomsbury Publishing Plc. for Microsoft Corporation.

Sacks, S. (2003, July 14). *What social skills enhance integration*. Retrieved July 11, 2005, from [http://www.tsbvi.edu/Education/social-skills.htm](http://www.tsbvi.edu/Education/social-skills.htm#content)

Spungin, S. J. (Ed.). (2002). *When you have a visually impaired student in your* *classroom: A guide for teachers*. New York: AFB Press.

Ward, M. E. (1996). Anatomy and physiology of the eye. In A. L. Corn & A. J. Koenig (Eds.), *Foundations of low vision: Clinical and functional perspectives* (2nd ed., pp. 69–85). New York: AFB Press.

Washington State Department of Services for the Blind. (2005). *Employer handbook:* *Definition of legal blindness*. Retrieved July 11, 2005, from
[http://www.dsb.wa.gov/resourcesForEmployers/employerHandbook
/definitionOfBlindness.htm#contentTop](http://www.dsb.wa.gov/resourcesForEmployers/employerHandbook/definitionOfBlindness.htm#contentTop)

West Virginia University, Department of Education. (2005, April 23). *Strategies* *for teaching students with vision impairments*. Retrieved July 11, 2005, from <http://www.as.wvu.edu/~scidis/vision.html#sect1>

### Additional Resources

#### **Article**

Cox, P. R., & Dykes, M. K. (2001). Effective classroom adaptations for students with visual impairments. *Teaching Exceptional Children, 33*, 68–74.
 *This article provides two useful checklists: 1) Checklist for Outdoor and Indoor Orientation and Mobility Adaptations and 2) Checklist for Classroom Strategies and Adaptations. In addition, the article provides brief sections on types of visual impairments, orientation and mobility skills, incidental learning, working with vision specialists to adapt learning environments, both visual and auditory forms of learning and accommodations, and tactile learning. The article also considers technological adaptations and curriculum issues.*

#### **Books**

Levack, N. (1994). Low vision: A resource guide with adaptations for students with visual impairments (2nd ed.). Austin, TX: Texas School for the Blind and Visually Impaired.
 *The book provides information about how to assess and thus augment students’ visual abilities. Sections of the book include “Diagnosing, assessing, and evaluating;” “Medical information;” and “Strategies for teaching and adaptation.”*

Loumiet, R., & Levack, N. (1993). Independent living: A curriculum with adaptations for students with visual impairments – Volume I: Social competence (2nd ed.). Austin, TX: Texas School for the Blind and Visually Impaired.
 *Featuring three volumes of curriculum that may be applied to young or adult students, the book focuses on methods of assessing, teaching, and evaluating independent living skills. Such things as professional and student resources, lesson plan examples, and evaluation forms can be found throughout the text.*

Video

Sacks, S. Z., & Wolffe, K. E. (Eds.). (2000). Focused on: Social skills. [Videotape series and print material]. New York: AFB Press.
 *This series of five videos and accompanying print materials is designed to help children with visual disabilities learn social skills. The study guides that come with the videos offer texts for students, as well as instructional materials and assignments that teachers may find useful.*

# ***Resources***

## **11. Credits**

*To cite this module, please use the following:*

The IRIS Center. (2005). *Instructional accommodations:* *Making the learning environment accessible to students with visual disabilities*. Retrieved from
[https://iris.peabody.vanderbilt.edu/module/v02-successsight/](https://iris.peabody.vanderbilt.edu/module/v02-successsight/#content)

### Content Experts:

Anne Corn
Diane Fazzi
Brenda Naimy

### Module Developers:

Janice Brown
Kim Skow

### Module Production Team:

**Editors:**
Jason Miller
Erin Spinka

**Reviewers:**
Susan Flippin
Jason Phelan
Naomi Tyler
Zina Yzquierdo

**Permissions:**
Susan Flippin

**Audio engineer:**
Tim Altman

**Media specialist/technical support:**
Jason Phelan

**Web master:**
John Harwood

### Media

**Illustrator:**
Kerri Charlton

**Narration:**
Tim Altman

**Photos:**
Microsoft Clipart
Jason Phelan
“Phil Hatlen” courtesy of Phil Hatlen
“Anne Corn” courtesy of Anne Corn
National Aeronautics and Space Administration
“Brenda Naimy” courtesy of Brenda Naimy
“Betty Hurst” courtesy of Betty Hurst

**Graphics:**
Shutterstock

**Movie:**
“Fish is Fish” courtesy of John Bransford

**Expert Interviews:**
Phil Hatlen (p. 4)
Anne Corn (pp. 5, 8)
Diane Fazzi (p. 5)
Brenda Naimy (p. 7 link)
Betty Hurst (Wrap Up)