#### Vision Enhancement Program Using Distance Devices

Students 11 and Older

INSTRUCTION MANUAL

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**6** Devices for Distance Viewing: Students 11 and Older

Produced by the American Printing House for the Blind, the ENVISION Program is an exciting array of materials that will have a significant impact on encouraging the provision of interdisciplinary low vision care for visually impaired children.

ENVISION is the first training program to address the complicated relationships between the assessment of vision in the classroom and the clinical examination. Students are best served in a low vision program that includes the input of teachers, parents, primary care eye doctors, and the clinical low vision specialist. As might be expected, obtaining a coordinated input from all these individuals/professionals is often a difficult task. This effort is made difficult because of the lack of an accepted standard of care for students with low vision. The success of any vision care program is directly related to the quality of the professionals providing the services, and the low **vision service** is no different. Having a model or an accepted standard of care will make developing this positive working relationship easier. Everyone involved will have a better idea of what is expected professionally. The ENVISION Program can be a small but very significant part of this "envisioning" of a national model of low vision care for visually impaired children and young adults.

Low vision must be seen as a continuum of assessments from home to school to clinic. A functional assessment in the classroom, a mobility assessment in the hallways of the new school, a report from parents about visual functioning at home, or a clinical examination in the doctor's office are all important features of a low vision service. However, each represents only a piece of the program. Such information will be much more effective in helping the child if coordinated into one plan of vision care. It is this team of people who can be thought of as the "low vision specialist" and not the individual experts who provide the independent assessments.

The goal of the team is not to provide the student with devices that might aid in the performance of tasks such as reading small print, viewing movies, seeing writing on the chalkboard (dry erase board), or getting around the school. Rather, the "team" concentrates on how effectively the student is using his vision. Individual providers often use the accomplishment of a specific task as the hallmark of a successful educational intervention for a visually impaired student, and a milestone in the student's road to optimum visual performance. The team must measure and measure again the student's capabilities and then provide the resources (devices, prescriptions, training, materials, etc.) that will allow that student to achieve clinically-measured potentials in vision.

While clinical assessments are very important in determining the child's potential to perform tasks visually, all those involved in the child's care must remember that all clinically-measured visual potentials cannot be achieved in the non-clinical environment. Often, visually impaired children will achieve beyond those clinically measured visual potentials. Thus continuous dialogue among team members and ongoing assessments are key to the successful **low vision service.** 

The service actually begins in the pediatrician's or optometrist/ophthalmologist's office when the child is an infant, when the eye problem is first noticed. A referral to a pediatric ophthalmologist should result in appropriate medical care, which will help assure that future loss of vision is prevented.

If the child's vision meets the criteria, the pediatric ophthalmologist must refer the child for special services for the visually impaired in the local school system. In addition, the parents should be advised to contact a low vision clinician in the community or request this clinical assessment through the local school system. Parents and teachers should be made aware that there are two very different types of clinical examinations and that the child will need to be followed medically by an ophthalmologist and also by the low vision team, who track changes and needs in his vision. In this manner, the ophthalmologist becomes a very important part of the **low vision service** and an ongoing, active member of the team.

The teacher for the visually impaired (TVI) will have many responsibilities to the child in developing appropriate and efficient educational programming. Participating in the **low vision service team** means the TVI will often be the person who initiates and/or advocates for the clinical low vision assessment.

The TVI will prepare a low vision functional assessment for the low vision clinician once the clinical evaluation has been arranged. This low vision functional assessment will be a compilation of the functional assessments already provided by the school (educational, mobility, social, psychological), as well as the TVI's own observations. The purpose of the low vision functional assessment is to inform the low vision optometrist of the types of problems the student is having in the classroom and with other aspects of the educational program. The capabilities of the child to function visually and a list of tasks and activities with which the student is having difficulty must be included in the low vision functional assessment. The clinician will learn more about acuity from the listing of tasks the student can and cannot do, than from the information provided by a visual acuity chart. The teacher's observation of the child's visual performance is indispensable to the clinical evaluation. The TVI reports information on visual

# functioning that cannot be measured in the clinical setting, **again emphasizing the importance of the team approach.**

The low vision clinician is the next member of the team to interact on behalf of the child. The clinical evaluation is designed to provide insight into the child's visual capabilities as he works under ideal conditions. The clinical data will describe what components of the child's present environment (as described in the TVI's low vision functional assessment) will enhance the visual potential and which components will most adversely affect visual performance. Based on the clinical data, the low vision clinician makes *prescriptive recommendations* as to optical interventions that may allow the student to perform, or enhance efficiency in various school tasks and activities.

The term "prescriptive recommendation" is an outgrowth of the team approach. If the device or glasses are "prescribed," there exists the assumption that a final decision has been made. This makes it difficult to evaluate the use of the device for the specified educational goals. "How do we tell the clinician this device doesn't work?" can be a stressful issue among team members. Fortunately, "prescriptive recommendation" implies that the device be evaluated in the classroom under real life conditions, stresses, and distractions. Since it is only a recommendation, a much more relaxed discussion about its success or failure in the classroom is enhanced. The team effort will be much more effective if the device is recommended and "becomes" a prescription based on the clinical data and the functional information provided by the TVI. This evaluation of the prescriptive recommendation will include classroom training, instruction, and task experiences.

The low vision clinician must prepare a clinical low vision report for the TVI that outlines the clinical data obtained. The report will also suggest the extent to which training with the device will be needed before attempting to use it for specific tasks in the classroom. The training can be:

- Generic in nature with the goal of developing visual skills with magnification.
- Specific task-oriented training with the prescriptive recommendation.

It is anticipated that with this additional training and experience in the classroom, the prescriptive recommendation could be modified or even changed at some future clinical assessment.

The ENVISION Program will make its greatest contribution to the low vision service at this point. The clinician does not know enough about the classroom and educational priorities to make effective training recommendations for the teachers to follow up. The TVI is not experienced enough with optics to be able to successfully integrate the prescriptive recommendation/device into the daily classroom experience for the child.

With the ENVISION training manual, the TVI (or orientation and mobility instructor, physical therapist, occupational therapist, or child rehabilitation counselor) will now have a more structured program to help initiate classroom-oriented optical aid training. The low vision clinician will have specific training protocols to recommend for the TVI to pursue at school. The ENVISION training program allows for better communication (teamwork) between teacher and clinician.

The training can be focused on teaching the child to better utilize his present vision by using some of the basic optical devices provided in the training program's optical array. Further, the ENVISION Program can be used to introduce the student to the care and handling of optical devices while waiting for his prescription. Students will sometimes need to be given experience with one of the basic optical devices provided in the ENVISION Training Program so that a prescriptive device may be recommended at a later date.

All of these post-examination instructional goals can be reached in a collaborative manner using the ENVISION Training Program Distance and Near Magnification Optical Devices.

- All levels of acuity can be involved in the training programs by the manipulation of the training devices and the print or object sizes.
- The ENVISION Program is designed to provide training materials that will provide experience with an actual optical system but not provide the student with a permanent optical device.
- As the need for greater magnification is realized for a particular individual, the size of the materials is modified rather than a stronger optical system being prescribed.
- For training purposes, the same magnified retinal image will be utilized with either approach.
- This material modification approach discourages the dispensing of optical systems out of the ENVISION Training Program and encourages the **low vision service, team approach** to vision care for the visually impaired student.
- The ENVISION Program also provides training materials and ideas for devices prescribed by the low vision clinician after the initial classroom training/assessment activities. These training activities, designed for use mainly after the dispensing of a specific device in the clinic, are usually directed at developing better **visual** efficiency with the optical system.

This post-dispensing training gives the TVI and low vision clinician an opportunity to discover and solve additional problems that may require modifications to the prescribed device. Further, such training may identify tasks that cannot be addressed with the new prescription, and which will require further evaluation of both task and prescription in the classroom and clinic.

As noted above, it is important for the **Low Vision Service Team** to communicate easily with one another. This communication is made easier when all individuals remain focused on the student being served, not on their individual contributions and decisions. It should be obvious that in the most successful low vision service, the captain of the team is the **child being served**.

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### PREPARATION FOR USING ENVISION I

Access to information about the physical environment is just as important to a person with visual impairments as it is to a person with normal sight. Many strategies exist today for providing access to the environment for persons with visual impairments. Most professionals agree that the student is best served when a multi-disciplinary approach using the expertise from ophthalmologists, optometrists, education professionals, and parents is used. This cooperation provides the student with a better chance of receiving the appropriate optical devices and the right training for each.

Telescopes, particularly monocular telescopes, are the best recognized tools used by persons with low vision who strive to function expertly and confidently in an environment where distance vision is important. Monocular telescopes are available in a range of sizes and powers. Most are designed to help the individual better view objects that are too far away to be seen clearly. Because monocular telescopes are available in specific powers and fields of view, expert advice is needed to determine the correct monocular telescope for each student. The low vision clinician fills this need by administering a low vision exam to each student for whom it is appropriate, and recommending telescopes. Under the best of circumstances, the low vision exam takes place after the teacher of the visually impaired has provided the clinician with useful information in the form of a functional vision assessment. The clinician makes good use of information such as "How close must Jimmy sit to the chalkboard?" and "How far from

his face does Jimmy hold his books?" Some good examples of functional vision assessments are: *ISAVE* (for children 5 and younger or children with other handicapping conditions) by Beth



Langley, *Functional Vision and Media Assessment for Students who are Pre-Academic or Academic and Visually Impaired in Grades K-12* by LaRhea Sanford and Rebecca Burnett, and *Functional Vision Assessment and Interventions from Essentials of Early Intervention for Children with Multiple and Visual Disabilities* by Irene Topor, Deborah Chen, Editor. Any of these, when used with wisdom, will provide good information to the low vision clinician. Basing her decision on the functional vision evaluation and the clinical exam, the clinician then prescribes one or more monocular telescopes for the student according to need, or she may determine no devices are needed. Whatever the outcome, it cannot be overemphasized that an examination by the low vision clinician is necessary BEFORE implementation of ENVISION curricula and associated materials. Once the teacher has the low vision clinician's recommendation, it will be easy to match the student with the correct monocular telescope from the array. The array is provided for use during training if the student did not receive his telescope immediately after his examination. The teacher must use the telescope of the same power as the one recommended by the clinician unless the clinician specifies otherwise. (Sometimes the clinician will recommend some preliminary training on the 2.8x telescope prior to training with an 8x or higher power telescope.) In addition, the teacher should loan the telescope to the student only for the duration of the training session.



After the lesson, the device should be returned to the case for use during other training sessions and by other students.

Because acquiring a monocular telescope is only the beginning of access to the distant environment by the student with visual impairments,

each ENVISION I: Vision Enhancement Program Using Distance Devices is designed to help the vision teacher or other practitioner fill the training need. It is intended to be used immediately after the student receives a prescriptive recommendation for a distance device or immediately upon receipt of the device. This valuable time can be used to help the student become proficient in developing skills necessary for the use of his monocular telescope while he is still enthusiastic about receiving the device.



Once the student receives the recommended monocular telescope from his clinician, that device should be used for training, and the student should not be permitted to use the other devices from the array unless directed to do so by the clinician. It is very important that the student be trained in the efficient use of the prescribed devices in order to achieve the best outcome and to assure his continued use of the devices.

Unfortunately, some children will probably not receive a low vision evaluation from a clinic or qualified optometrist by the time they are referred for training. In those instances, the teacher of the visually impaired can best serve the student by insisting upon a low vision exam. If the school district refuses or if funding is a barrier, an evaluation can often be arranged using resources outside the school. The Lions Club has provided low vision exams and paid for needed spectacles, telescopes, and magnifiers for many students across America. In some cities, the Rotary Club is helpful. In other towns and villages, the Moose Lodge or the Optimists Club can help. In almost every community, the resources exist to provide a low vision exam for a needy student.

If success doesn't occur right away, the teacher should continue to work toward obtaining an evaluation from a qualified low vision clinician. Often the teacher of the visually impaired offers the best observation and recorded visual behaviors that the clinician can obtain. If the teacher of the visually impaired establishes a good working relationship with the low vision clinician,

Before introducing a monocular to a student, it is important the teacher understand the child and the way his vision functions. obtaining a low vision exam for a needy student becomes a little easier because a dialogue with the clinician has already been opened. Remember, ophthalmologists and optometrists are committed to helping all people who need their services. Most of these fine professionals are willing to "work something

out" if financing is an issue. Clinicians can often point out resources in the community, and the teacher can often facilitate the arrangement.

Before introducing a monocular to a student, it is important the teacher understand the child and the way his vision functions. The creators of ENVISION I: Vision Enhancement Program Using Distance Devices have included a "Student Information Sheet," which may be photocopied and completed with help from the student's



parent or the student himself. If used wisely, it will help the teacher ask the student and parents the best questions for obtaining a basic understanding of how the student uses his vision.

The best sources of more detailed information are the teacher's functional vision assessment and the eye report issued by the student's clinician. It is wise to request a copy of the eye report from the student's parent, or have the parent sign a release allowing the teacher to receive a copy directly from the low vision professional.

Though no single model for teaching the use of telescopes can work equally well with every child, each ENVISION I: Vision Enhancement Program is a structured, skill-development and training program based upon the widely-accepted theory that such a program should include instructor-directed tasks and reinforcement procedures that are built upon welldeveloped visual attending behaviors. Students without well-developed attending behaviors may need some remediation before the introduction of telescopes. Additionally, skills learned through the use of distance devices should reinforce visual attending, visual examining, and visually-guided motor behaviors (Hall and Bailey, 1989). Therefore, these curricula include suggested high-interest activities and stories that help develop the aforementioned skills. The curricula also suggest methods for reinforcement of skills as they develop.

It is essential that the exercises used in training the student be relevant to the student's life and experience. When such activities are applied, skills are more likely to be exercised even after training is concluded (Corn, 1980). Every effort has been made to provide basic skills training and to develop enrichment exercises that are not only relevant, but also fun and interesting for the student. These exercises have taken into account psychosocial factors related to the use of optical aids by young people.

Before attempting training in the use of the monocular telescope for outdoor activities, the instructor should introduce it indoors in a controlled environment. It is most



helpful to the student if the purpose of the monocular is explained to him during the introduction.

During this preliminary training you may discover that your student actually has no concept of "in focus." In that instance it is suggested you place a simple black and white line drawing on an overhead projector and focus the image on a light-colored wall or screen. Use the knob to bring the image into clear focus. Then turn the knob to take the image out of focus. Let the student then turn the knob to make the image look as clear and sharp as possible. In this way your student will learn the concept of "in focus."

Once the concept is learned, it is time to introduce the idea of focusing the monocular. As a general rule, the teacher originally focuses the monocular for a beginning student while looking at a target. When the student then looks at the target through the monocular, he may need to turn the focusing adjustment ring just a little bit clockwise or counterclockwise to bring the image into clear focus for his eye. However, one should expect more movement of the focusing ring when the distance





from the target changes. For close objects, the focusing ring is turned clockwise so the monocular is

lengthened; for more distant objects, the focusing ring is turned counterclockwise to shorten the monocular.

Telescopes consist of multiple lenses that work together to provide angular magnification. For example, a simple Galilean telescope might consist of an objective lens that is +20.00 D in power and an ocular lens that is -40.00 in power. The resultant magnification of this combination of lenses, separated by an appropriate tube length, would be 2x, (40 divided by 20). So the first number on a telescope indicates the magnifying power. The greater the number, the larger the image appears when viewed through the monocular telescope. As the magnification increases, the area that can be seen at one time becomes proportionately smaller. When the image is too large to fit into the limited field of the telescope, the observer must then do more scanning in order to view the entire object.

The second number indicates the diameter of the objective, or front lens of the telescope. It is measured in millimeters and "indicates how much light enters the telescope and how bright the image will be. The larger the number, the brighter the image and the greater the likelihood that the student will be able to use the system in less-illuminated environments. It does suggest (but not always) that the field of view will be larger" (R. T. Jose, personal communication, March 2002). So a monocular may have a high power, thus limiting the field, but also have a larger diameter, increasing the field of view and image brightness. When an object is farther away, more of it can be seen. Conversely, when the object is closer, less of it can be seen. If the student needs to wear glasses while using the monocular, his field may be decreased because the monocular is held away from the eye by his spectacles, increasing the vertex distance.

When the student has become proficient in the use of the telescope indoors, he may begin working outside. Training should take place on campus, in the student's yard, or in other familiar territory. If the teacher is not

a certified orientation and mobility specialist (COMS), she should arrange for

Telescopes consist of multiple lenses that work together to provide angular magnification.

one to accompany the student on lessons whenever training extends beyond these protected areas.

Frequently, fatigue will be a factor when the monocular telescope is used by the student. It is tiring for the arms to hold a monocular up to one's eye for several minutes. It may be helpful for the student to rest his elbow on a surface such as a table or desk if the viewing task is very lengthy. If such a surface is not available, it is also possible to create a support by asking the student to fold his nondominant arm across his chest so he can rest the elbow of his dominant arm on the fist of the other hand. However, when fatigue occurs, the teacher should be sensitive to the student's needs and allow his entire visual system to relax and feel restored before continuing the exercises.

One further concern is holding the monocular steady in order to keep the target consistently in view. This is particularly important with the stronger monoculars, since a very small hand movement is exaggerated by the telescope, making the image appear to jump around. Using both hands to hold the monocular, finding a way to support the elbow of the dominant hand, and bracing the fingers of the dominant hand firmly against the forehead are all useful techniques for accomplishing this goal.



Other issues, especially among teens, include psychosocial factors involved with using any device that might cause the student to feel different from his peers. Even the most well-adjusted, confident student will probably suffer some teasing. Some

students will become reluctant to use the monocular telescope after being teased. In such cases, the

instructor should allow her student to voice his concerns. Support from the teacher and other professionals within the school system can be invaluable to a student who is self-conscious about using his monocular. Including the student's



classmates in activities that make instruction and activities in optics look attractive can also help other students warm to a student who uses a monocular. Such activities might include astronomy, photography, nautical guidance, bird watching, and spectator sports.

When the student completes training and either becomes proficient in the use of his monocular telescope or shows significant problems during use, it is time for the teacher of the visually impaired to fill out the form "Using Prescriptively Recommended Optical Devices: Skill Performance Checklist for Monocular Telescopes," and send it to the low vision clinician.

Finally, the teacher should enjoy her partnership with the student during the training experience. Watching a student move gracefully and safely through his environment because he has adequate access to needed visual information is one of the most rewarding experiences a teacher can have.

#### **COMMON TERMS & DEFINITIONS**

- 1. **Low Vision:** Denotes a measure of functional vision below 20/40 that cannot be fully rectified by ordinary corrective measures such as eyeglasses, contacts, or surgery.
- 2. **Telescope:** An optical device that uses a combination of lenses and prisms to enlarge distant objects using angular magnification. The same principle is used with ordinary sports binoculars.
- 3. **Focal Distance:** The distance between the magnifier's lens and the object being viewed, at the point where the object being viewed is in focus.
- 4. **Localization:** A term often affiliated with the training of distance devices, it denotes the ability to use an optical device to locate the position of a specific object.
- 5. **Scanning:** Represents the technique of following from left to right a line of print; also used to describe the process familiarizing oneself with the layout of a page. Often scanning will follow a bit of a zigzag pattern, as shown below:



- 6. **Tracing:** A term used to denote the following of stationary lines in the environment. Though tracing is a term used primarily for training with distance devices, it is an appropriate term for near distance devices when the task calls for following lines that do not conform to the orderliness of straight, horizontal lines prevalent in text.
- 7. Visual Field (Field of Vision): Measured in degrees from the fixation point, this is the region that is seen when looking straight ahead; also used to refer to the area that is seen through an optical device.
- 8. **Field of View:** The area that is seen through an optical device.
- 9. Dominant Eye: The eye that naturally sends the most visual information to the brain. Often, but not always, the dominant eye will be located on the same side of the body as the dominant hand. To find your student's dominant eye, cut a hole about the size of a quarter in a piece of paper or an index card. Have your student look through the hole at a close target. Then have the student close one eye and then the other. The eye that sees the target and not the index card when the other eye is closed is your student's dominant

eye. In most cases, your student will use his dominant eye when relying on near distance devices. It is best to check with the low vision clinician to confirm which eye should be used with a prescriptive device.

- 10. **Dominant Arm:** The arm with which one naturally performs most physical tasks. Unless your student's dominant arm is nonfunctional, he should find it easiest to use the hand of his dominant arm to manipulate the magnifier.
- 12. **Scotoma:** A "blind spot" in the visual field, frequently caused by damage to part of the retina.
- 13. **Eccentric Viewing:** A technique used whereby part of the retina that is not usually used for sharp vision is utilized when a section of or all of the fovea (the part of the retina that provides the greatest visual clarity) has become non-operative.



#### WHAT TO EXPECT FROM A MONOCULAR TELESCOPE

The following chart shows how a monocular telescope can significantly improve the viewing of distant images for the student with a vision impairment.

The left column lists common visual acuities among students with low vision. The second column lists the distance at which the student must stand to read the 20/40 line on the eye chart. The third column lists the distance at which the student must stand to read the 20/20 line on the eye chart. The fourth column lists the distance at which the student must stand to read the 20/40 line on the eye chart with a 2.8x telescope.

Entering Acuity	20/40 Distance	20/20 Distance	20/40 with 2.8x
20/40	20 ft.	10 ft.	56ft.
20/60	13 ft.	6 ft.	36 ft.
20/80	10 ft.	5 ft.	28 ft.
20/100	8 ft.	4 ft.	22 ft.
20/120	6 ft.	3 ft.	16 ft.

The second chart gives the same information but compares the distances with those of a student with lesser acuities who is reading the 20/40 line with a 4x telescope.

Entering Acuity	20/40 Distance	20/20 Distance	20/40 with 4x
20/100	8 ft.	4 ft.	32 ft.
20/120	6 ft.	3 ft.	24 ft.
20/160	5 ft.	2.5 ft.	20 ft.
20/200	4 ft.	2 ft.	16 ft.
20/240	3 ft.	1.5 ft.	12 ft.
20/280	2.5 ft.	1.25 ft.	10 ft.

#### BENEFITS OF USING A MONOCULAR

- In the classroom, the student may use a monocular to view the blackboard from his seat and avoid having to walk up to it. This will make copying easier.
- The student can read materials from a distance. This comes in handy in a store, during a sports activity, or on a field trip.
- **3.** By using a monocular, the student can identify people at a distance; this helps him feel more confident in social situations.
- **4.** The monocular is small and portable, and can easily fit in a pocket or purse. It promotes more efficient and independent outside travel.
- **5.** The monocular can be used so the person with low vision can participate in leisure or spectator activities such as bowling and football games.
- **6.** The monocular gives the proficient user a sense of freedom when he knows he has access to the distant visual environment.

#### THINGS YOU SHOULD KNOW BEFORE USING ENVISION

- **1.** The eye for which the device was prescribed
- 2. Your student's dominant hand
- **3.** Your student's tolerance for glare
- **4.** The correct viewing end of the monocular telescope
- **5.** The correct distance for your student to view the blackboard
- **6.** What's in your student's eye report
- 7. What's "in focus" and "out of focus" to your student may not be exactly the same for you, but it should be close to the same "in focus" point
- 8. How to include monocular telescope training in your student's IEP
- **9.** Safety issues concerning use of monocular telescopes
- **10.** The power of the monocular telescope recommended by the low vision clinician
- **11.** The features and capabilities of the optical devices you will be using as tools
- **12.** If the student should be wearing prescription spectacles while using the device
- **13.** The best lighting to use during training

#### THINGS TO DO BEFORE USING ENVISION

- Have the parents sign a release form which allows you to talk freely with your student's school staff, certified O & M specialist, and eye care professionals. Then, talk with them about how you may help the student in his monocular skills training.
- **2.** Obtain and read your student's eye report.
- **3.** Become familiar with monocular telescopes and their proper use and handling.
- **4.** Become familiar with your student who has a visual impairment and his strengths, weaknesses and needs.
- 5. If your student has no concept of "in focus," you may demonstrate the concept to him by putting a bright picture of a familiar object on the overhead projector (Cowan & Shepler, 2000, pp. 146-147). Allow your student to adjust the machine to bring the image into focus. If clearer focus can be achieved after the student has tried, adjust it for him so that he may see the object when it is "in focus." If, after several trials he still does not understand the concept, you may need to refer him back to the low vision optometrist for an explanation and recognition of the concept and for pre-training.
- **6.** Complete the informal Student Information Sheet (see page 37).

#### PRE-MONOCULAR ACTIVITIES FOR TEACHER AND STUDENT

## For students who have no prior experience with a monocular telescope.

- Give your student a cardboard tube. Explain that the monocular telescope is shaped like the tube. Allow your student to look through the tube to see light at the far end. Explain that a monocular telescope is like a tube that magnifies things in the distance. It has special lenses somewhat like an astronomer's telescope.
- 2. Help your student identify his dominant eye and dominant hand. Start out holding the tube to the dominant eye with the dominant hand. The student should be allowed to switch hands if it is more comfortable for him.
- **3.** Show your student how to hold the tube correctly, that is, level, with his head upright, his hand wrapped securely but lightly around the tube. Let him practice. Make sure he sits or stands with his back straight.
- **4.** Talk to your student about the responsibility of using a monocular. Talk about the issues of storage, care, and cleaning.
SUGGESTIONS Ask parents to provide Discuss with parents Informal Student Information Sheet Student File, Eye Report Vision Teacher Student File, Eye Report Vision Teacher Parents Personal Observation Parent Personal Observation Teacher RESOURCES Date Student File Student File Student Student COMMENTS RESULTS Diagnosis, if known Presence of Eye Report Assess Distance Vision ENVISION Student Name Assess Near Vision **TO BE ASSESSED** Grade Level Presence of IEP

Informal Studen	t Informa	ation Sheet		page 2
TO BE ASSESSED	RESULTS	COMMENTS	RESOURCES	SUGGESTIONS
Assess Peripheral Visual Fields			Student File, Eye Report Vision Teacher Student Parent Personal Observation	
Learning Style Visual Audial Kinesthetic			Student File, Eye Report Parent Student	
Optical Devices Needed			Student File, Eye Report Parent Student	
Lighting Modifications, Colors, and Filters			Student File, IEP Parent Student	
Effective Use of Contrasts			Student File, Eye Report Student File, IEP Student	
Preferred Formats Regular Print Large Print (size) Braille Speech Electronic			Student Parent Vision Teacher Past Teacher	
Need for Rest			Student File, Eye Report Student File, IEP Student Parent	

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**38** Devices for Distance Viewing: Students 11 and Older

# ENVISION I

# Skills and Topics Presented in Envision II

Students 11 and Older

Skill	Where Found
Parts Identification	
Ocular Lens	Preparation Diagram Page
Objective Lens	Preparation Diagram Page
Barrel	Preparation Diagram Page
Adjustment Ring	Preparation Diagram Page
Lanyard	Preparation Diagram Page
Cleaning	Lesson 1.1
Storage	Lesson 1.1
Retrieval	Lesson 1.1
<b>Readiness</b> Identify Dominant Eye	Lesson 1.1, 1.2 Pre-Monocular Activities
Identify Hand to Use	Pre-Monocular Activities
How to Grip Telescope	Lesson 1.2
Positioning the Telescope	Lesson 1.2
Stabilizing the Telescope	Lesson 1.2

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Skill	Where Found
Targets	
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Scanning	Lessons 1.7
Ambient Sound Use	Lesson 2.2
<b>Concepts to Learn</b>	
In Focus	Things to Do, Lesson 1.2
Out-of-Focus	Things to Do, Lesson 1.2
Multiple Planes	Lessons 1.3, 1.4
Spotting Without Telescope	Lessons 1 2
With Toloscopo	
Using Sounds	Lesson 2.1, 2.4
Using Colors	Lesson 2.1, 2.3
Focusing	
Under 20 feet	Lessons 1.2
Over 20 feet	Lessons 1.3, 1.4, 1.5, 2.1
Single Plane	Lessons 1.11, 2.1
Multiple Planes	Lessons 1.3, 1.4, 1.9, 2.1
Tracing	
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Short lines	Lesson 1.5
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40 Devices for Distance Viewing: Students 11 and Older

Skill	Where Found
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Identification	
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Street Signs	Lesson 2.2
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Moving Objects	Lessons 1.11, 2.3
Single Plane	Lessons 1.11, 2.3
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Leisure Use	
Indoor Events	Lessons 1.11, 2.5
Outdoor Events	Lessons 2.4, 2.5
Television	Lesson 2.5
Movies	Lesson 2.5
Independent Use	
Indoor	Lessons 2.4, 2.5
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Self-Advocacy	Lesson 1.13

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<sup>42</sup> Devices for Distance Viewing: Students 11 and Older



Vision Enhancement Program Using Distance Devices

For Students 11 and Older

# PARTS OF THE MONOCULAR



#### CARING FOR THE MONOCULAR

## **Objective:**

The student will demonstrate proper care and storage of a monocular.

## Materials:

Monocular, as recommended by a low vision clinician.

## **Procedures:**

- 1. Show the student the objective lens, the ocular lens, housing, and focusing ring of the monocular.
- 2. Demonstrate to the student:
  - the monocular can be kept in the carrying case or the RollBuster II between uses, or when the student is using it to work at his desk
  - if the student requests it, the neck strap may be worn to prevent dropping and breakage
- 3. Tell the student in order to keep the lens as clean as possible:
  - the lens should not be touched
  - the monocular should not be handled with dirty hands

- 4. Show the student how to gently wipe the lenses with a clean, barely damp, soft cloth when the lenses become smudged. Do not use a paper towel; it could scratch the lenses.
- 5. Show the student how to gently dry the lenses with a soft, clean, dry cloth. Air-drying also works well.
- 6. Ask the student to correctly demonstrate cleaning and drying of the lenses.
- 7. Explain to the student that the monocular should always be stored in the case or the RollBuster II to prevent accidental scratching of the lens when not in use. The lens cap should always be on the monocular when not in use. If the student has lost his original case or refuses to use it, he may prefer the RollBuster II case.
- 8. Show the student how to easily retrieve the monocular by keeping it in the same place and removing it from the case or RollBuster II by grasping the barrel firmly with forefinger and thumb. If the device is worn on a lanyard, the student simply grasps the barrel between the palm and fingers and brings the telescope to his eye.
- 9. Allow the student to ask questions about the function and purpose of the telescope. Provide simple, yet informative answers.

#### LEARNING TO FOCUS

### **Objective:**

The student will become familiar with the concept of a monocular telescope and will learn to hold the monocular telescope, focus properly on a near target and describe the target.

## Materials:

- 2.5x monocular, or monocular of power recommended by a low vision clinician
- Object cards: flag, black & white star, triangle

## **Procedures:**

- Tell the student that you will show him a monocular telescope. Explain that a monocular telescope can be used to see objects and read information in the distance.
- 2. Show the student how to carefully take the monocular telescope out of its case by grasping it firmly. Show him the neck strap and explain how it is important to use the neck strap to prevent dropping the monocular telescope. Then show him the RollBuster II. Explain that while carrying the monocular between uses, he may wish to keep it in the RollBuster II, which is padded and offers good protection.

- 3. Show the student the ocular lens, housing, and focus adjustment ring on the monocular. Demonstrate how, for near viewing, the focus adjustment ring or the ocular end of the telescope is gently turned with the thumb and forefinger of the selected hand to extend the monocular telescope. For distance viewing, the focus adjustment ring or ocular is turned to shorten the monocular telescope.
- 4. Before giving the monocular telescope to the student for the first time, adjust it as closely as possible for the target so the student will have minimal adjustment when he first begins to use it.
- 5. Demonstrate to the student how he can hold the monocular telescope to his dominant eye and turn the focus adjustment ring while looking through the monocular. Show the student the "ocular" or viewing end of the telescope and demonstrate how to grip the telescope by wrapping fingers and thumb around it. Show him how to press the flesh of his index finger and thumb against his orbit to block out light.
- 6. The student should now locate the object to be viewed without the monocular telescope if he can. Choose something familiar like the clock or your face. At a distance of 10 ft., ask him to now bring the monocular telescope to his eye and attempt to focus on the target while looking through the monocular. He should turn the focus adjustment

ring with his free hand or turn the ocular with his dominant hand and stabilize the monocular with his free hand.

- 7. The student should now turn the focus ring until his target becomes as clear as possible. Help the student with hand-over-hand assistance if needed. Allow the student to stabilize the telescope by leaning on his elbow or holding his arms tightly against his chest.
- 8. Place an object card on the blackboard tray or other stable, viewing surface. Make sure the student is sitting at least 10 ft. from the card. Ask him to first look at the picture card with his eyes and maintain the card in his field of vision. Then tell him to bring the monocular telescope up to his eye. Give him a moment to focus the monocular. Ask him if he can identify the picture. Any description of the object card will do. If he cannot identify the picture, try the black and white star card. If he is having trouble identifying the card, it may be because it is not in focus or he is not directing the monocular telescope in line with the card. Check his focus and direction until he can spot the card. Repeat this exercise until the student can identify all three object cards. Be sure to praise his success. Then mix up the cards and repeat the exercise. Make sure the student puts the telescope down between cards. Repeat the exercise at a distance of 15 ft.

9. Inform your student that in this instance "monocular" means "with one eye" and indicates a telescope used with one eye. Often, a monocular telescope is called simply a "monocular."

**Important:** Try to have the student sitting close enough to the target so he can easily focus on it and read or describe it. If the distance you have tried seems too far away for the student to have success, move him closer until success is achieved. Then try moving him backward to the 15-ft. distance and repeat the exercise.

**Enrichment Activity:** Once the student has learned to handle and focus the monocular, hold up covers of popular magazines or sports team symbols, or pop culture symbols, such as Coca-Cola<sup>™</sup> for identification.

#### PRACTICING MEDIUM DISTANCE TASKS

## **Objective:**

The student will learn to position and perform medium-distance (15 to 25 ft.) tasks with recommended indoor monoculars.

## Materials:

- Monoculars, as recommended by a low vision clinician
- Object cards and signs: flag, pinwheel, triangle, stop sign, 783, 932, 538, 892

## **Procedures:**

1. Ask student to sit in his usual place in the classroom.

Place the following number cards at various spots around the room.

783, 932, 538, 892

Try to make sure each card is about the same distance from the student and that all are at the same height.

Place the following object cards on the blackboard. (Make sure each card is approximately the same height and distance from the student.)

Flag, pinwheel, triangle, stop sign

- 2. Check to make sure the student is focusing the monocular properly and first spotting the card without the monocular before bringing the monocular up to his eye. Point out the object card if needed for initial location. Ask the student to adjust the focus on the monocular until the object card is as clear as possible. When the student has located the card and properly focused the telescope, ask him to put the telescope down.
- 3. Now ask the student to visually locate the next card before bringing the monocular to his eye. He may then identify the object. He need not know the exact name of the object as long as he is able to describe it. Repeat for each card, putting the telescope down between cards.



- 4. Ask the student to follow the same procedure for the number cards. If the student misses a card, say nothing.
- Scramble the same cards and repeat the exercise. Make note of any cards which the student misses twice in a row.
- 6. Congratulate the student upon his successes. Then take any cards the student missed twice and line them up on a wall. Move the student 5 ft. closer to the wall than he was previously. Ask him to again locate the cards visually, employ and focus the monocular, and then put it down. If the student has missed many of the cards at the first distance but identifies them at the closer distance, his monocular may have been out of focus or not strong enough. Repeat the exercise, moving the cards closer. Repeat again for distances of 15, 20, and 25 ft. If the student continues to have difficulty and the monocular is focused, a referral back to the low vision clinician may be appropriate.



#### VIEWING A PERSON

### **Objective:**

The student will describe gross and fine motor movements of teacher in an indoor setting.

## Materials:

Monoculars, as recommended by a low vision clinician

#### **Procedures:**

- 1. Stand in the front of the room (no more than 20 to 25 ft.) and ask the student to stand in the back of the room. Now ask the student to focus on you with his eyes, then bring the monocular up to his eye. Make sure the monocular is focused or that the student is working well in focusing the telescope, and that his grasp on the monocular is firm and his arm is stable.
- Move your arms up into touchdown position (both arms bent at elbows with fingertips pointing straight up). Ask the student to describe your actions. The student may then describe your movements as:

"I see you putting your arms up."

"I see you pointing at the ceiling."

- 3. Repeat the exercise using various slow arm movements such as pointing out to the sides, dropping arms down, flapping your arms. Try to keep your movements fairly close to your head. Again ask the student to identify your movements.
- 4. Now tell the student you will be moving your legs. Give him a moment to locate your legs and then bring his monocular into place. Now slowly move your legs in various positions and again ask the student to describe the actions.
- Once the student is able to describe gross movements, ask him to focus on your face. Have the student tell you what your face is doing. Try a smile. Then open and close your eyes, frown, look surprised, stick out your tongue, etc.
- Next, you may hold up one finger, three fingers, make a fist, wave hello, while asking the student to identify your movements.



**Enrichment Activity:** Read the following story to the student or ask someone to record the story for him.



## ENVISIONI



# **Gymnastics Blues**

by Elaine Kitchel

Kris groaned out loud when he read his schedule and found that he would be taking gymnastics during the second semester of his sophomore year at Running Bear High School. He had asked to take swimming, but the class must have been full. He had seen the National Gymnastics Championships on television, and he could not imagine ever jumping over a chair, much less vaulting 8 ft. in the air over a pommel horse.

It wasn't that Kris was not athletic, he could bench press 160 pounds, and could run 440 meters in under two minutes. What Kris was not proud of, and what he didn't want others to know, was that he was afraid of falling. Swing from a tall high bar? He didn't think so. He wondered how he could manage to get a written excuse every Tuesday and Thursday. This would take some doing.

At lunch, Kris sat with his friends Emmy, Sarah, and Ethan, Emmy's brother. "Hey what do you have for your P.E. class?" asked Sarah.

"I have archery," said Ethan.

"I have gymnastics," answered Sarah.

"Me too! Second period," said Emmy.

"Me too!" squealed Sarah.

"Me too." The words somehow hit a sour note as they issued from Kris's mouth.

"Oh, boy," said Sarah, "the three of us have gymnastics all at the same time. Very cool!"

Sarah and Emmy started talking about buying leotards, tights, and headbands. Kris slowly began to bang his head with his English notebook. He had not even thought of the "leotard" thing. He sighed heavily at the thought of his skinny legs in tights. He had a hard enough time keeping his trousers from falling down. How could things get any worse?

"What's the matter with you?" Sarah asked. "You look so very grim."

"My life is over, basically," said Kris, who took a bite of his bologna sandwich. "Gymnastics is not a sport. It's for girls. Guys don't want to do all that whirling and twirling and pointy-toe stuff. I'm all grossed-out." Kris didn't want to say he was afraid.

Things didn't get any better over the next few days. Kris tried to transfer to a basketball class but they were all full. He had a moment of hope when he remembered that he was allergic to spandex. But his mother managed to find some cotton tights. Luckily on the first day of gymnastics, he got a sinus headache and went to the nurse's office, but eventually he knew he'd have to face the music.

By the second gymnastics class, Kris was completely out of options. He showed up to gymnastics class hugging the wall

and wearing his baggy, black, cotton tights. His monocular hung on a chain around his neck like a lead weight. The other boys wore slick, blue gymnastics suits and tank tops. Already they had learned to do cartwheels and some snazzy-looking tumbling moves, and they were rolling and tumbling over one another, waiting for class to start.

"Today," said the teacher, Mr. Quifty, "we will learn to swing from the high bar."

Kris felt his breath leave his body. He began to sweat and shake. He didn't know how high the high bar was. It might take him up near the gymnasium roof. That seemed a long way up indeed.

He summoned all his courage and decided to examine the high bar with his monocular telescope. He located the high bar in his field of vision and brought his monocular up to his eye. It was hard to tell just how high it was, but as the teacher's pet, Jason, hung from the bar, it appeared his feet were only a foot or two from the floor.

Kris watched as Jason began to swing forward and back on the bar, just a little at first and then in an ever-widening arc.

"Whatcha lookin' at through your scope?" queried Dwight, a very short and very blond boy.

"Uh, hummm," said Kris, caught off guard, "I'm just checking out the height of that high bar." "Yeah, sure you are," said Dwight skeptically. "I wouldn't be surprised if you weren't checking out the girls at the other end of the gym."

Annoyed, Kris, moved to the other side of the high bar, where he could hear Mr. Quifty's instructions. "...swing your legs out and fold slightly at the hips." As instructed, Jason folded his legs at the hips and swung as gracefully as a gibbon in a tree. "Once you have the swinging motion under control, we'll try a giant swing over the bar. I will tell you when. Kris, you can go next."

Kris was a bit shaky. Even though he had listened well, he thought he would have more time to learn by watching the others with his monocular. However, when Jason stepped away from the high bar, Kris handed his monocular to Dwight, hitched up his baggy tights, and stepped to the apparatus. A big lump formed in Kris's chest as Mr. Quifty hoisted him up to grab the bar. Once in place, Kris hung there for a moment, feeling helpless. But slowly he began to swing and pump his legs, just as he did as a child on a swing. Hey, this is easier than I imagined, he thought. The distance between himself and the floor felt unimportant as his long legs helped him swing back and forth with ease. He was just thinking that maybe he could do this after all, when his momentum carried him right over the bar and down the other side. "Hey," yelled Mr. Quifty, "you're not supposed to do that until I say so!" Kris was surprised, he had not realized he was high enough to make a complete circle. Before he knew it, he had made another trip around the bar, and finally he collected himself enough to drop, panting, to the mat below.

"How did I do?" he asked. The boys all slapped him on the back and shoulders saying "Cool." Mr. Quifty gave him an unexpected smile, but then quickly pointed to another part of the gym and said "Kris, you and Jason go over to the mat and start doing forward rolls."

Kris went to the mat, put his monocular in a safe place, and started doing somersaults. He performed every kind of somersault he could think of: knees together, knees apart, drop-and-roll, roll-and-stand up. When he was tired, he sat down to catch his breath and wipe the sweat from his forehead. This gym stuff is pretty easy, he thought. He grabbed his monocular, and as he scanned to locate his teacher, he momentarily caught sight of the sophomore and junior girls doing elegant cartwheels and scissor kicks at the other end of the gym. This gymnastics stuff isn't going to be so bad after all," Kris thought as he let out a long sigh of relief. Ask your student to sit in one place and, with the monocular telescope, watch students on the pommel horse. If the student is far enough away, he should be able to watch the pommel horse action without moving the telescope.

## Field trip:

(This could be an exercise for the whole class.) Take a trip to a gymnastics class. Watch the young men and women on the balance beam, rings or the uneven bars. Ask your students to make a short recording, painting, or sculpture expressing their movements.

#### TRACING LINES AND CARDS

## **Objective:**

The student will systematically trace targets from left to right.

## Materials:

- Monocular, as recommended by a low vision clinician
- Object cards from materials kit: 12-pointed star, checkerboard, stop sign, colored stripes, flag, dartboard, no smoking
- Number cards from materials kit: 3258, 903, 4172, 260, 6909, 3008, 783, 417, 932, 38, 71, 606, 90

## **Procedures:**

- 1. Draw a continuous, heavy, curvy line on the blackboard starting on the left and finishing on the right. Ask the student to stand about 20 ft. from the board and use his monocular to follow the line from beginning to end. This is called tracing.
- 2. Have the selected object cards lined-up one after another across the top of the blackboard. Ask the student to focus his telescope on the top left of the blackboard.

- 3. Say to the student, "Look at the picture in the topleft corner of the board. Now use your monocular to identify the picture." If a student is not sure where "top-left" is, help him find the first picture.
  - Ask the student to identify the pictures in the rest of the line. Help the student move from the topleft, to right, using hand-over-hand technique if needed.
  - 5. Set up the number cards in two rows, with the larger cards in the top row. Tell the student to read the line of big numbers cards, (3258, 903, 4172, 260, 6909, 3008) beginning from the left.
  - Ask the student to read the smaller number cards (783, 417, 932, 38, 71, 606, 90) beginning at the left.
  - Change the positions of the numbers and pictures. Ask the student to read the top line again beginning at the left.
  - Now tell the student to move from the right (end of the top line), back to the left again, then drop down to find the beginning of the second line. Repeat this procedure for each line of number cards and object cards.

- Carefully observe as your student continues tracing with the monocular and reads numbers on the second line, third line, and subsequent lines from left to right, then left again in a zigzag motion.
- 10. Record the student's performance in your notes Keep track of any object cards or number cards which he continuously fails to identify. In a subsequent activity at a closer distance, see if he can identify them.

**Enrichment Activity:** Make three rows of canned vegetables by stacking cans on one another. Have the student identify the kind of vegetables in the can by looking at the labels with the recommended monocular from a distance of 10 to 20 ft. Make sure he practices the left to right movement. If he identifies the cans, give him a reward.

## TRACING

# **Objective:**

The student will trace lines of information or shapes.

## Materials:

- Monocular, as recommended by a low vision clinician
- Constellation cards from Materials Tote
- Other star cards from Materials Tote
- Blank pad of Post-it<sup>®</sup> Notes or other self adhesive note papers

#### **Procedures:**

 Show the student the constellation cards close up. Give him the following information either by reading or just talking to him.

Recognition of groups of stars as constellations can be traced back to the earliest periods of civilization. In ancient writings called "cuneiform text," from nearly 1,500 years before Christ, the Sumerian names of the constellations still known as the lion, the bull, and the scorpion can be found. Drawings of these astronomical animals appear on boundary stones used by the Babylonians of the same period. These words or signs have also appeared on older artifacts, such as prehistoric seals, Sumerian vases, and gaming boards, all of which indicate that the presence of constellations was acknowledged as early as 4000 BC.

Some recorded configurations of Chinese origin, including the scorpion, lion, hunter, and northern dipper, are similar to those of the West, suggesting the possibility of a very old common tradition for a few groups of stars.

In the oral traditions of the Middle East, shepherds are often given credit for observing and naming the stars because of their all-night occupations, which gave them little else to do.

Explain to your student that no matter who watched and named the stars and constellations, they were often named after objects or animals whose shapes were thought to be similar. Using constellation object cards, show the student close up how the scorpio constellation is somewhat similar to the shape of an actual scorpion. Examine the other constellation cards and talk about the shapes made by the star patterns. Point out the name of the constellation on each card.

2. Now place the constellation cards and the other star cards, (five-pointed star, twelve pointed star, black and yellow pinwheel) about one foot apart in a row along one or two walls of the room. Ask the student to spot the first card on the left, then slowly move the monocular and his head to the right until he locates the second card. As your student performs this exercise, inform him that this motion of following a line of objects with the telescope is called "tracing."

3. Write the words STAR, NIGHT, COMET, SPARKLE, and other words of your choice in bold lines on the chalkboard. Ask your student to read them one-at-a-time. If the student misses a word, replace it with another word and try again until the student can read each word on the chalkboard. If your student misses all the words, the telescope may be out of focus, or the words may not be bold enough or large enough.

**Enrichment Activity:** Now take your pad of colorful self-adhesive notes and place them end-to-end to make a meandering path along the walls of the classroom. Ask your student to stand in the middle of the room, and with his monocular, trace the path of the notes along the walls, starting on the left. Tell him to stop immediately and notify you if he loses his path. You may then help guide him in finding the trail and finishing the exercise. This activity may be difficult at first, so you may want to repeat the exercise, changing the course of the path.

**Suggestion:** This is a good time to reward your student for a job well-done so far. Stationery stores, book stores, and department stores often have note or writing pads in the shape of stars. It would be nice to present one to your student at this time.

#### LEARNING TO SCAN

## **Objective:**

The student will scan for specific target words, letters, or pictures.

## Materials:

- Monocular, as recommended by a low vision clinician
- Object cards: your choice
- Number cards: your choice
- Street name cards: your choice

#### **Procedures:**

- 1. Randomly place the object, number and street name cards on the chalkboard.
- 2. Ask the student to focus his monocular telescope on the upper left corner of the chalkboard, then scan, beginning at a point designated as the top left, moving his head, telescope, and hand together as a unit slowly to the right. Tell him to identify the first object, number or word he comes upon. When he reaches the far right side, ask him to drop down slightly and move back to the left to scan the lower cards. Do one chalkboard at a time.

- 3. Make sure you have given the student a way to indicate when he finds the target word, letter or picture. Explain that this activity is called "scanning." Ask him to keep scanning to find as many objects, numbers or words as he can.
- 4. Now ask the student to find specific objects, numbers, or words within the frame of the chalkboard. "Find the picture which has a star with five points." "Find the number which ends in six." Do this until the student has located and identified all the cards. Repeat this activity for several days in a row.

**Enrichment Activity:** Take the student to the school trophy case, bulletin board, or other display area. Ask the student to scan the display while telling you what he sees as he looks from left to right. Make sure he practices dropping down to the next row as taught in the lesson. The scanning pattern should look like this:



Scanning takes much practice. Be aware of any opportunities for your student to practice his scanning skills while he is in your class.

#### SCANNING PRACTICE

#### **Objective:**

The student will scan for information in specific areas of the blackboard.

## Materials:

Monocular, as recommended by a low vision clinician

## **Procedures:**

- Help the student identify which specific areas of the board are used consistently by the mainstream teacher or by the class. This would include the areas assigned for today's date, homework assignment listings, lesson demonstrations, etc.
- 2. Using the technique presented in the previous lesson, ask the student to scan an area to find and read what is written there. For example, say to student, "What is tomorrow's homework assignment?" "What is the math problem on the chalkboard?"
- 3. Ask the student to scan to locate the area where the teacher writes (usually the center of the board).
- 4. Ask the student to read as the teacher writes in bold letters on the clean board.

**Important:** The classroom teacher should receive in-service training regarding the limitations of using a monocular. She needs to be aware of the importance of consistency in using specific areas of the board for ongoing information. The teacher needs to know it is easier for the student who is visually impaired to gather visual information if the teacher consistently works from the left side of the board to the right. She should also be informed that the student's visual field is limited when the student uses a monocular. Coach the student in asking the mainstream teacher for what he needs in order to make sense of his surroundings and assignments.

**Enrichment Activity:** Arrange to take the student to meet the art teacher. Ask the art teacher ahead of time to help you with this activity. Ask the student to stand in the back of the room and watch the art teacher as he/she draws a simple figure on the board. Ask the student to use his monocular to identify the figure. Have the art teacher make drawings, each with just a little more detail than the last. See if the student can identify the drawings. At the end, ask the art teacher to draw a three-frame cartoon. Ask the student to describe the cartoon and its meaning.
# Lesson 1.9

# VARYING DISTANCE IN HORIZONTAL SCANNING

# **Objective:**

The student will systematically scan at various distances and describe details in the classroom.

# Materials:

- Monocular, as recommended by a low vision clinician
- Object cards in various locations in classroom

- 1. Ask the student to scan left to right, from the top of a wall of the classroom. Tell him to scan from left to right in a horizontal line, then move to the beginning of the next scan by traveling back, right to left, in a slight downward diagonal line. He should then continue scanning horizontally again from left to right.
- 2. Instruct the student to repeat this zigzag motion going from the top to the bottom of the wall.
- 3. Ask the student to describe items on the wall as he sees them. If there is nothing of interest, hang object cards on the wall.
- 4. Repeat exercise for each wall. Make sure the distances from the student to each wall vary by

at least 5 ft. This is most easily achieved by moving the student.

- 5. To view other objects in the classroom, ask the student to scan systematically from left to right in a horizontal pattern across the floor.
- 6. Remind the student to adjust the focus as needed if the distance of objects differs.
- 7. Have the student continue scanning horizontally left to right, zigzag back again right to left, and then left to right, moving from distant to near.
- 8. Move the student to the window. Identify an object like a tree or car that is less than 15 ft. away. Ask him to spot the item, bring up his telescope, and focus it on the object. Identify another object that is 40 ft. away. Ask the student to spot and focus on the second object. Now ask the student to practice by looking at the first and second objects alternately and focusing each time. If all goes well, he should be able to scan between distances easily.

**Enrichment Activity:** Take the student to the library, media center, or some other area of campus where there are likely to be interesting posters, photographs, wall hangings and sculptures on the walls. Using the monocular, ask the student to scan the walls in the recommended manner and report to you what he sees. You may ask him to create an object or poster which would fit in with the scheme he has described.

# Lesson 1.10

#### FINDING DETAILS

# **Objective:**

Student will scan to find details on specific targets.

#### Materials:

- Monocular, as recommended by a low vision clinician
- Materials in various locations in classroom
- Eight object cards of your choice

- Ask the student to use his monocular telescope to answer questions which require attention to detail, such as, "What time is it?" "What is the title of the book on the shelf?" or "What does the poster on the back wall say?"
- If students are in the room, you may ask, "How many blondes are in the class?" "How many are wearing blue shirts?"
- 3. Place the selected cards at various heights and distances around the room. Ask the student to use his scanning technique to scan the room to find the object cards. Once he locates each card, ask him to describe what is on the card. As long as he gives a suitable description in his own words, it does not matter if his word choice matches yours. If he gets them all correct,

congratulate him, then shuffle or add to the cards and ask him to stand five feet farther away from the cards. Repeat the activity. If the student performs poorly when standing farther away, allow him to move closer. Repeat the exercise to end on a positive note.

**Enrichment Activity:** Arrange with the mainstream teacher to place a secret message somewhere new on the blackboard each day for a week. Make sure to use colored chalk or a box to differentiate the message from other blackboard text. Allow the student to scan the blackboard using the monocular at his leisure to find the message. Once he finds it, he should write it down on a piece of paper and turn it in to either you or the teacher. When he collects all the messages, he should then be able to assemble them to make the full message. Make sure to reward the student if he gets it right.

You may make your own messages or use the one recommended here.

Embed the following messages on the blackboard on subsequent days:

# Day 1

# Under snowy igloo nuts grow.

Use first letter of each word to form a word. Save it.

# Day 2

# Impossible code on roaming action just clips many crows.

Use second letter of each word to form a word. Save it.

# Day 3

#### usnif

Unscramble to make two words. Save them.

# Day 4

# Zfeftdyrab gdc zn ve cfdtq jvcq cqn jfayu

Apply code to decipher, z=m, n=e, f=o, c=t, d=u, v=i, q=h, e=n, t=c, j=w, g=w, g=p, y=l, b=s, r=a, a=r

# Day 5

Put all the words from the week together in the order they were given. Read the message.

#### Answer

Using monoculars is fun. Monoculars put me in touch with the world.

# Lesson 1.11

#### FINE-TUNING SCANNING AND

TRACING SKILLS

# **Objective:**

The student will find a familiar person among a group of people.

# Materials:

- Monocular, as recommended by a low vision clinician
- Group of familiar students or adults who are seated

- 1. **Seated People.** Begin by taking the student to a setting where there is a group of seated students, parents, or other adults. An auditorium with people on stage is a good example. Ask the student to focus on the person to the left-hand side of the viewing area.
- When the student is able to demonstrate that he can identify something about that person (the lady with the yellow hat, for instance), ask the student to slowly move the monocular to the right.
- 3. Ask the student to continue tracing the row of people until he reaches the last person on the right. Ask the student to describe that person to you.

4. If there are several rows of students or adults, ask your student to begin again on the left moving to the row of students or adults directly



behind and trace that row to the right. Tell the student to hold the monocular close to his eye and stabilize it with his non-dominant hand while adjusting the focus as needed. The amount of adjustment should involve minimal movement left or right. Then ask the student to find and identify someone that he knows. Have him describe that person to you.

5. **Moving People.** In a group of people who are moving, (exiting an auditorium, on the playground, or at the bus stop) ask the student to assume a stationary position. Ask him to quickly scan the group. He should begin on the left and move to the right. If his scanning method is appropriate, again ask the student to hold the monocular close to his eye and stabilize it with his non-dominant hand while adjusting the focus when needed. The amount of adjustment should involve minimal movement left or right. Ask the student to identify any familiar person.

6. Next ask the student to scan the group and find a particular person. Say to the student, "Can you find \_\_\_\_\_?" The student should scan the entire group left to right until he finds the particular person. Ask him to describe what the person is wearing. (The student may need to scan from the left, back to the right, and then to the left again in a zigzag pattern several times before finding the particular person.)

**Enrichment Activity:** Have the student attend a school play, pep rally, ceremony or some other gathering of students and faculty. Ask the student to use his monocular to scan as he finds the principal, the cheerleaders, the band conductor, or other appropriate individuals. Ask the student to describe the individuals' clothing either live to an adult or in an oral report to you later.

# Lesson 1.12

#### APPLYING SKILLS IN THE CLASSROOM

#### **Objective:**

The student will apply monocular skills in the regular classroom.

#### Materials:

Monocular, as recommended by a low vision clinician

#### **Procedures:**

**Note:** This application lesson should be conducted for 5–7 days in a row. Be sure to ask the student to show you his notes at the end of the time period.

- 1. Ask the student to use the monocular to scan the blackboard and copy homework assignments in his daily planner.
- 2. Ask the student to use the monocular to locate on the blackboard listings of materials to be covered each day.
- 3. Ask the student to follow along as the regular classroom teacher writes on the board. Have the student use the monocular to view the blackboard while he copies the teacher's notes from the board into his own notebook.



Please let the student know it is appropriate to ask for assistance if necessary.

**Enrichment Activity:** Attend a fun school event with the student. Take fifteen minutes to practice the skills

learned at the event thus far. Then let the student use the monocular throughout the event as he needs it. Allow him to make decisions about when he should use it during the rest of the event.



# Lesson 1.13

#### SELF-ADVOCACY

## **Objective:**

The student will learn to advocate for himself in order to develop confidence and ensure access to information in the visual environment.

#### Materials:

Tape recorder (optional)

- 1. Read or play a recording of the story on page 87 to your student. (Do not make him read the story since reading is hard work for a visually-impaired student and you want him to be very relaxed for this exercise.)
- 2. In a quiet room, place two chairs facing one another. Use the chairs to sit across from your student. Once seated, tell your student, "I'd like for you and me to have a little fun role-playing." Explain that role-playing is when one takes upon himself the role of another. Explain that you are going to be "the student" and your student is going to be "the teacher."
- 3. In your role as "the student," show your student first the inappropriate behavior which students occasionally exhibit toward teachers instead of using proper advocacy skills. You might want to

flop in your chair and say something comparable to "I hate this class. Math reeks. Teachers need to get a life instead of hanging around crowded classrooms telling kids what to do. Why don't you do something to help me out?" Ask if your approach is working. Does your approach make him feel like helping you? Does your approach make him want to tell you to just go away? Explore those feelings briefly with your student.

- 4. Now model the appropriate behavior for your student. "Ms. \_\_\_\_\_, I am having trouble in your class." Give the student as "the teacher" a chance to ask you what may be the matter. You may want to answer something similar to, "I think it might be that it's difficult for me to find the assignments/lessons on the blackboard. Did you realize that you move them around each day?" Again give your student as "the teacher" a chance to respond.
- 5. As "the student," tell "your teacher" how difficult it is for you when you have to search for the assignments each day, how it requires extra energy you would rather use on your schoolwork. Tell "your teacher" that you'd like his cooperation in meeting your



needs. Clearly identify "the need" as you model good advocacy skills. Clearly ask for help in "getting the need met." Speak politely, calmly, and clearly to "your teacher" as you model these important skills. Give "the teacher" a chance to respond in a positive way to your request.

- 6. Switch roles. Give the student a chance to play himself. Listen and give good and sincere responses to his request in order to build confidence.
- 7. Discuss your role-play. Talk about any tricky spots. Show your student that teachers are teachers because they want to "help" and teach young people, and when properly approached, most teachers are happy to meet the needs of a student.
- 8. Teach your student the meaning of the old adage: "You can catch more flies with honey than with vinegar." It has many applications for people who are asking for help or services.





## **ENVISION I**

# Emmy Gets Frustrated by Elaine Kitchel

Emmy sighed deeply and put her feet upon her desk. She knew there was a rule against putting her feet on the desk, but she did it anyway. She was feeling something; she did not know what to call it, but she knew she did not feel happy. She let out another big sigh.

Ms. Bryant, Emmy's English teacher, heard Emmy's last big sigh. The whole room heard it. Ms. Bryant saw Emmy's feet on the desk and said, "Ms. Emmy Sue, please come up to my desk."

Emmy knew she was in trouble, but she just didn't care very much. "What is the matter with you?" asked Ms. Bryant. Her voice was sincere.

"I don't know," said Emmy. "I guess I am tired."

"Why are you tired?" asked Ms. Bryant.

"I don't know," replied Emmy. " I'm just tired of school. My head hurts."

Ms. Bryant replied, "Then you must go see the school nurse, Mrs. Bumblebun. Go to her office right now and tell her about your headache."

Emmy walked slowly down the hall. She trailed her fingers along the brick wall in the hallway. She stopped to smell

the odors of the cafeteria. Pizza today, she mused. But even the thought of pizza did not chase her blues away.

As Emmy entered Mrs. Bumblebun's office her face was long and sad and droopy. "Why, what's the matter with my charming Emmy?" asked Mrs. Bumblebun as she quickly stuck a thermometer in Emmy's mouth.

"Er, mmm, nnuudd," said Emmy with the thermometer wedged under her tongue.

"You have a headache? Oh my dear. We'll fix you up right away."

As she was led by the plump nurse to a cot where she gratefully lay down, Emmy wondered how Mrs. Bumblebun had understood her mumbling. "Now, you just tell me about it," said the nurse.

Emmy burst into tears. "I'm not happy," she cried. "I am so tired of trying to see the blackboard. Even with my monocular, I still can't find anything. Ms. Bryant keeps moving things around. One day the homework assignment is on the left blackboard, and the next day it may be on the right blackboard or not written down at all." Emmy wept loudly. "I'm just not happy. I can't keep up!"

Deep in thought, Mrs. Bumblebun squeezed her lips into a little circle and tapped herself on the side of the head. "Emmy, my dear, there is a word for what is wrong with you." "What is it?" asked Emmy, lifting her head a little.

"Frustration. Emmy you are frustrated." Mrs. Bumblebun seemed very certain.

"Well I don't like this frustration," whined Emmy. "I want it to be over."

"I have good news," said Mrs. Bumblebun. "You can make it go away."

"Really?" asked Emmy with a surprised face.

"Yes indeed. Here is how you make it go away. You march yourself right back into that classroom and you tell Mrs. Bryant that you want to talk to her at lunch. Then when you meet with her, tell her you are frustrated because she keeps moving information around on the blackboards. Tell her how difficult it is for you to find the information. Ask her to decide on an area for all homework assignments and another area for announcements, and a different area for doing math on the blackboards. Then tell her it would help you a lot if she would keep those pieces of information in the same spots day after day."

"But she's the teacher. I can't tell her what to do," whined Emmy.

"Indeed, you may not tell her what to do. But what I am proposing is that you tell her what you **need** and ask her if she can help you get what you **need**. If you do it that way, I am sure she will be very helpful." Emmy was a little scared, but she met with Ms. Bryant at lunch. Ms. Bryant was so understanding and slightly embarrassed that she hadn't thought of the solution herself. She listened to Emmy's needs and worked with Emmy to make sure Emmy's needs were met so she would not get so frustrated in her class again.

"Emmy," she said, "I'm glad you came to me with your problem. You were good at speaking up for yourself. I will be happy to start putting things in the same place day after day so you can find them. Thanks for trusting me to help you with your frustrating problem. I'm glad you felt confident enough to ask for my help."

Emmy was very glad she had followed Mrs. Bumblebun's advice and had spoken up for herself. Suddenly her frustration was all gone. She felt more sure of herself and happy that she now knew how to handle her problem.

# **Safety Issues for Outdoor Activities**

- The following activities should take place primarily 1. out-of-doors. If you stay in a sheltered environment, such as the school grounds or the student's yard, you may be able to help the student. However, any activity which requires crossing streets or off-campus travel, the student should work with the certified O & M specialist. Be sure the student is quick and proficient in using the monocular to read traffic signs and signals before attempting to cross streets. While the student is standing at the intersection, he should use the monocular to read the traffic signals and determine when it is appropriate to cross the street. The student should then quickly check again without the monocular to be sure that it is safe to cross.
- 2. The student should never walk or attempt to cross a street while using the monocular. The monocular distorts distances and perspective because it makes things look closer and restricts field.



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Vision Enhancement Program Using Distance Devices

For Students 11 and Older

# Lesson 2.1 Finding Stationary Targets at Varying Distances

# **Objective:**

The student will focus on and describe small stationary targets on campus at various distances.

# Materials:

- Monoculars, as recommended by a low vision clinician
- Cards from materials packet (your choice)

**Note:** A certified O & M specialist should accompany you on outdoor lessons if you cross streets or travel off-campus.

#### **Procedures:**

Begin working at a distance which seems comfortable for the teacher to read details with the naked eye.

1. Select cards, numbers and street names from the materials packet. You may stand at a distance of 20 ft. from the student, holding the cards up one-at-a-time. Ask the student to identify the cards using his monocular. If there are traffic sounds, you may want to communicate with the student by using hands-free walkie-talkie sets.

- Repeat the exercise at 30 ft. and again at 40 ft. Make sure the telescope is strong enough for the greater distance and small target of a license plate.
- 3. Walk around campus. Ask the student to read signs and locate shrubs or objects at various distances.
- 4. Ask the student to locate a specific target, such as a car in the school parking lot. Say something like, "Use your monocular to find the blue car in the first row." Ask the student to identify the brand of car it is. Ask him to read the license plate, if possible.
- 5. If the student is unable to read the license plate numbers which can be read by the teacher or his classmates with typical or corrected vision, allow the student to try again standing closer.

**Enrichment Activity:** You or the student's parents may take him to a car, boat, hobby, or flower and garden show where there are lots of interesting things to observe through the monocular. Repeat exercise 2.1. Later, ask the student about his activity.

# **Objective:**

The student will read signs and traffic signals offcampus at various distances.

# Materials:

Monoculars, as recommended by a low vision clinician for intermediate and long distance

**Note:** *Please engage the services of a certified O & M specialist when performing items 2–4 of this exercise.* 

# **Procedures:**

 Travel outdoors on campus with the student to an area he knows well. Settle at a distance from a street sign or other sign which will allow the student to spot the sign easily with the naked eye. Then, using the monoculars that the clinician has recommended for intermediate and long distances, say to the student, for example: "Find the pole on the corner. With your monocular, trace upward to read the name of the street on the street sign near the top of the pole." If street signs are unavailable, use the ones from the card packet.

- 2. Repeat the exercise again after positioning the student about 30 ft. from a traffic signal. Ask the student to find the traffic signal. Offer help if needed. Ask the student to tell you what color the light is. If the student is color blind, teach him how to identify what color the light is by its position. Top is green, bottom is red, yellow is in the middle. Ask the student to tell you when the traffic light changes and what color it changes to.
- 3. Practice at different intersections until the student can quickly and easily locate and read street signs, bus stop signs, traffic signals, and can quickly tell when the traffic signals change.
- 4. In a residential area, ask the student to focus on a house on the street. Ask him to locate and read the house number. Then ask the student if he knows how to locate particular houses by their numbers. If he does not, show him how even numbers are on one side of the street and odd numbers are on the other. Show him how street numbers move from smaller to larger. Ask him to identify numbers on each side of the street.



**Enrichment Activity:** You may perform this activity at your school building, or the student's parents or a certified O & M specialist may take the student to the Capitol building, a historic district in town, the Courthouse or some other interesting site. Ask him to view the site with his monocular. Ask him questions such as:

- What is the address?
- What style is the architecture?
- How many trees are there?
- Does it have steps?
- Does it have bushes and flowers?
- What color is the roof?
- What is the main material the building is made of?
- Are there plaques, statues, fountains or other items of interest, on or around the building?
- Can you tell if the building is old or new?
- What is the building used for?
- Are there any new additions to the original building? How can you tell?

# Lesson 2.3

#### VIEWING MOVING TARGETS: TRACKING

#### **Objective:**

The student will focus on and describe moving vehicular targets.

# Materials:

Monocular, as recommended by a low vision clinician

**Note:** *Please engage the services of a certified O & M specialist when performing items 4 and 5.* 

- 1. Position the student in a safe place outdoors. Wear a brightly-colored hat or carry a colorful ball. Ask the student to use the monocular to watch your head (or the ball) as you walk away and then close, and left, then right. Walk in a circle, then in a zigzag pattern. Make sure the student is following you with the monocular. If he has trouble, simplify the exercise until he develops a little skill.
- 2. From a stationary position on the school's sidewalk or driveway, ask the student to spot a car as it is moving toward him. Ask him to spot another as it moves past him, and then away from him.
- 3. Practice spotting, then tracking moving targets by asking the student to describe the color or make of each car as it moves away from him.

- 4. When the student can easily spot, track, and describe cars as they move away, ask the student to read the destination sign or number on a school bus as the bus is moving toward him.
- 5. At an intersection, ask the student to track and alternately describe traffic moving in parallel and then perpendicular directions. The descriptions of traffic should comprise simple sentences, such as "There goes a silver truck."

Repeat this lesson several times to allow the student sufficient practice at developing tracking skills.

**Enrichment Activity (Outdoors):** The certified O & M specialist or the student's parents may take the student to a go-cart racetrack. They may ask him to listen as a cart approaches, then view the carts as they approach his position and then as they move away. Ask him to describe the carts on the track if they are different. Ask him if he can count the carts on the track and name their colors. When the student returns from the activity, encourage him to tell you about it.

For an indoor enrichment activity, take the student to the school's fashion show, graduation, or other event. Have him sit or stand in an inconspicuous spot. Ask him to describe people as they move toward him. (This is easy at a fashion show.) Ask him to describe their clothing or hair. Ask him to follow their movements as they move away from him too.

# Lesson 2.4

#### USING A MONOCULAR TO SHOP

# **Objective:**

The student will apply skills using a monocular to shop.

# Materials:

- Monoculars, as recommended by a low vision clinician
- A little spending money

**Note:** If you are not a certified O & M specialist, you may ask one to accompany you on this exercise. The entire exercise is indoors so use judgement based upon your student's indoor travel expertise and the availability of the student's parents for the exercise.

- Accompany your student to the student bookstore or student commissary. Or, if you prefer, you might ask the student and his parents to meet you inside a local department store. From about 20 ft. inside the store, ask the student to locate the entrance with his monocular. Ask him to trace the edge of the front door.
- Now ask your student to turn around and scan for directories, aisle content signs, or other signs hanging from the ceiling or posted on the aisles. Ask him to describe the signs as he finds them.

- 3. Once the student finds the sign for the aisle he wants to travel down, accompany him down the aisle and ask him to use his monocular to locate and read, while still at least 10 ft. away, where the item or items he wishes to purchase are stored. Repeat this for each item the student wishes to purchase.
- 4. Ask the student to listen for the sound of the cash registers and scan in that direction to locate the checkout stations. As the student approaches the checkout stations, ask him to stop and scan the queues with his monocular to find the shortest one. Give him praise as he accomplishes these steps in shopping.
- 5. Accompany him through the checkout line to the exit of the building. Present him with a card or other little memento of his successful shopping trip in which he used his monocular effectively.

**Enrichment Activity:** (It is strongly recommended that a certified O & M specialist accompany you during this activity.)

After the student has familiarized himself with the mall, take another trip to the mall with the student and a friend of his choice. Allow the student to show his friend the landmarks he has discovered. Allow him to show his friend the sights and the stores he enjoys. Allow them to go into a store and make a purchase after locating desirable products by using good indoor monocular scanning techniques.

# Lesson 2.5

# USING A MONOCULAR FOR

#### LEISURE ACTIVITIES

# **Objective:**

Student will use a monocular for leisure activities.

# Materials:

Monocular, as recommended by a low vision clinician. The clinician may recommend for these activities a telescope that is stronger than the one recommended for indoor use.

**Note:** If you are not a certified O & M specialist, you should ask one to accompany you on any activity to take place off the school grounds.

- 1. **Archery:** Ask the student to wear his telescope on a neck strap. After locating the target visually, ask the student to shoot the arrow at the target. Obey all safety rules. Show the student how to use the telescope to locate the arrow and determine its landing place on the target. Ask him to keep track of his own score. (It helps to have the telescope pre-focused for this activity.)
- 2. **Fast foods:** Point out to the student where the overhead menus are and how they are usually arranged in categories. Ask the student to use the monocular, find a category, and read several items and prices in that category.

- 3. Airport: Point out to the student the airline schedule and note that it is categorized into arrivals and departures. Ask the student to check the departure time and gate for a flight to a city which sounds appealing to him. Ask the student to locate the gate. Ask the student to scan and find other important signs such as restrooms, exits, gates. This may be a good time to teach the student how to handle inquiries about the monocular by airport personnel.
- 4. **Zoo (Enclosed Space):** If the area is an enclosed space, ask the student to scan the area from left to right and find an animal. (You may need to help the student initially in locating the animal.) Ask the student to watch the animal and describe what it is doing and what it looks like.
- 5. **Zoo (Open Space):** If the animal is in an open area such as a large pasture or field, tell the student to find the far side of the field, that is, the horizon line. Tell the student to use the horizon as a guide and to keep the horizon line in the upper half of his view. Ask him to scan horizontally left to right, then down, and back again horizontally right to left. Ask the student to describe what he sees.
- 6. **Concert:** Ask the student to scan left to right, front to back. Point out to the student the various instruments and sections. Ask the student to watch the director and follow when he points to a particular section. Explain to the student that when the director points to a section, that section

plays. Ask the student to see if he can find the section that is playing and to watch various sections or players.

- 7. Sports Stadium (baseball, football, basketball, track): Ask the student to scan the field and to describe the activity that he sees. (Because of his limited visual field, the student may have a difficult time following fast moving activity.) Ask the student to spot a particular player/number and to follow that player. Ask the student to describe what the player is doing. (This activity often requires a stronger and bigger telescope.)
- 8. **Movies, Television, Theater:** From a relaxed sitting position, ask the student to focus on the television, movie screen, or stage. Ask the student to describe a scene or person to you.
- 9. **Scenic Views, Nature, Ocean:** Point out a view of particular interest. Have the student describe what he sees and what feeling it brings him. Ask the student to locate the horizon line. Tell the student to use the horizon as a guide and to keep the horizon line in the upper quadrant of his view. Ask him to scan horizontally left to right, then down, and back again horizontally right to left. As appropriate, with the monocular, ask the student to track and describe a boat on the water, surfers in the ocean, hikers on a nature trail, or to scan a beautiful scene. Encourage independent use of the monocular.

**Enrichment Activity:** Meet the student and his parents at an event or place of his choice. Allow him to exercise his skills while enjoying the event or place. Guide him when he needs help or when he forgets to use his monocular in an appropriate situation. Praise his success. Present him with a certificate of achievement from the accompanying materials packet. These kinds of activities that include parents build relationships in which parents are more likely to support the use of optical devices by their child.

#### REPORTING BACK TO THE CLINICIAN

# **Objective:**

To provide the clinician with the results of training with the monocular telescopes.

# Materials:

Form "Using Prescriptively Recommended Optical Devices"

The clinician who provided the prescriptive recommendation of the optical devices for your student is very interested in knowing the results of the training you have provided. Only by having access to feedback from you will she be able to make an informed final prescription.

The form, "Using Prescriptively Recommended Optical Devices," (next page) is provided so that you may have a quick and handy way to report back to the clinician, the proficiency your student has achieved as a result of training. For best results, fill out the form and send it in to the clinician with as much information as you can provide, including the distance at which the student performed the skill. Be sure to include information not asked for on the form, if you think it is important to the clinician's final recommendation. Extra forms are provided in the Materials Packet. Upon receipt of the form, the clinician will make a final prescription using the information you have provided. For this reason, your information must be clear, concise, and accurate. The student will be the beneficiary of your accuracy by having the best distance devices possible for his access to visual information in his world.

The American Printing House for the Blind thanks you for your devotion to your student by providing excellent training and for using ENVISION I: Vision Enhancement Program Using Distance Devices.


**ENVISION I** 

## Using Prescriptively Recommended Optical Devices Skill Performance Checklist for Monocular Telescopes

After training, fill out this form and send to clinician

Student Name			Date	
Optical Device				
Teacher's Name			Signature	
<b>BASIC KNOWLEDGE</b>	CAN DO	NEEDS ASSISTANCE	DOESN'T DO	NOTATIONS & DISTANCES
Identification Ocular Lens				
Objective Lens				
Barrel				
Adjustment Ring				
Lanyard				
Cleaning				
Storage				
Retrieval				
Readiness Identify Dominant Eye				
Choice of Hand				
Grip				
Positioning on Face				
Stabilization				

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<b>Prescriptively R</b>	ecomme	nded Optical Do	evices cont	inued page 2
BASIC KNOWLEDGE	CAN DO	NEEDS ASSISTANCE	DOESN'T DO	<b>NOTATIONS &amp; DISTANCES</b>
Localization without Telescope				
Spotting				
Scanning				
Concepts				
In Focus				
Out-of-Focus				
Multiple Planes				
Infinity				
Spotting				
Without Telescope				
With Telescope				
Uses Auditory Cues				
Using Focus				
Under 20 feet				
Over 20 feet				
Single Plane				
Multiple Planes				
Tracing				
Left-to-Right				
Short Lines				
Long Lines				
Wavy Lines				
Convoluted Lines				

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Prescriptively R	ecomme	nded Optical Do	evices cont	inued page 3
BASIC KNOWLEDGE	CAN DO	NEEDS ASSISTANCE	DOESN'T DO	NOTATIONS & DISTANCES
Scanning Left-to-Right				
Uses Zigzag Technique				
<b>Identification</b> Symbols				
Pictures				
Numbers				
Street Signs				
Words on Chalkboard				
People				
Objects				
Tracking Moving People				
Moving Objects				
Single Plane				
Multiple Planes				
<b>Leisure Use</b> Television				
Outdoor Events				
Indoor Events				
Movies				
Independent Use Frequently				
Infrequently				
Never				
Length of Training Time Curriculum Used		Comments		



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**114** Devices for Distance Viewing: Students 11 and Older

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