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Introduction

Students’ ability to see greatly impacts their ability to learn. Screening for vision problems is an appropriate part of school health services, largely carried out by the professional school nurse. Screening is intended to facilitate early identification and diagnosis of disease and functional disorders. It is an easy, relatively inexpensive way to identify from a large number of apparently healthy students, those who may be at risk of having a potentially disabling condition.

Only an eye care professional can diagnose and treat a vision problem, but screenings help identify children who need a full eye exam. Students with vision concerns should be referred to an eye care professional. The referral is the most important component of the screening program.

The Individuals with Disabilities Education Act and Section 504 of the Rehabilitation Act of 1973 require educational agencies to identify all students who have a disability that impacts their education. Vision screening is a critical tool in identifying students who may have a vision condition. In addition, both federal laws require that assessments are conducted to determine student eligibility under these federal laws and ensure that their unique educational needs are identified and programmed for. Vision screening procedures can help an educational agency to determine if a student may have a visual condition that would make assessment materials inaccessible to them and potentially invalidate these assessments. The collection of vision screening data included in the mandatory annual reporting to the Wyoming Department of Education in the School Health Report, the screening process will facilitate in planning for support for Wyoming school districts and students (W.S. 21.2.202(a)(xxxviii)(E)).

This vision screening guidebook supports childhood vision recommendations from the National Association of School Nurses (NASN), Prevent Blindness, the American Academy of Pediatric Ophthalmology and Strabismus, and the American Optometric Association. The vision screening guidebook is intended to guide school nurses, school health representatives, special education professionals, and schools in the identification of children who may have a vision disorder, who then must promptly be referred to an eyecare professional for further evaluation.

Importance of Vision Screening

Screening in schools may be the only avenue for some children to receive vision screenings. Screenings play a vital role in not only students’ health but also their educational journey.

- Possibly detect refractive errors and other eye conditions that could impact the students’ ability to learn or academic performance.
- Repeated vision screenings throughout a child’s school years are effective in detecting new or previously undiagnosed vision and eye health problems.
- Ensure that appropriate educational accommodations are provided for students with vision deficits.
- Ensure that vision screening of children is accomplished using valid, reliable, and age-appropriate tools and methods.
- Establish follow-up procedures to ensure that each identified student will receive appropriate vision and eye health care.
- Facilitate access to a professional eye care provider for all children who fail a vision screening, for parents or teachers who suspect a vision problem, or for children who are at an increased risk of a vision problem because of an underlying medical condition.
Definitions and Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD</td>
<td>Right eye</td>
</tr>
<tr>
<td>OS</td>
<td>Left eye</td>
</tr>
<tr>
<td>OU</td>
<td>Both eyes</td>
</tr>
<tr>
<td>Monocular</td>
<td>One eye at a time</td>
</tr>
<tr>
<td>Binocular</td>
<td>Both eyes together</td>
</tr>
</tbody>
</table>
| Visual Acuity (VA) | A measurement of the clarity of vision  
|               | The visual acuity fraction is a measurement of the ability to discern a specific size of letter or number at a specific distance  
|               | • 20/20: the ability to see a specific size target at 20 feet that a normal eye can see at 20 feet  
|               | • 20/100: the ability to see a specific size target a 20 feet that a normal eye can see at 100 feet |
| Stereopsis   | Depth perception  
|               | Proper depth perception requires the two eyes work together as a team with relatively good and equal visual acuity in each eye |
| Color vision | The ability to see all colors in the visual spectrum |
| Optotype     | Letters, numbers, and symbols that are used on visual acuity charts |

Childhood Vision Concerns

Vision Development
Vision development is a lifelong process. Vision requires healthy eyes, focused images, proper binocular vision skills, visual processing by the brain, and integration with other sensory and motor systems.

Refractive Error
Refractive error occurs when light entering the eye does not focus properly. This results in blurred vision.

- Myopia (near-sightedness): Difficulty seeing objects that are at a distance.
- Hyperopia (far-sightedness): The eyes have to focus in order to see properly, which can create difficulty seeing things up close, or possibly at all distances.
- Astigmatism: The light entering the eye focuses at two points rather than at one point, which results in blurred or distorted vision at all distances.
- Anisometropia: A difference in refractive error between the two eyes. Anisometropia can be a risk factor for amblyopia.

Binocular Vision
Binocular vision is the ability to maintain visual focus on an object with both eyes at the same time, creating a single image.

- Strabismus: Misalignment of the eyes (“eye turn”). Strabismus is a major cause of amblyopia. With early intervention, vision loss can be prevented.
- Amblyopia: Reduced vision in one or both eyes, even with glasses correction, due to abnormal visual development early in life (“lazy eye”). Often due to strabismus or a difference in refractive error between the two eyes (anisometropia). With early intervention, vision loss can be prevented.
Non-strabismic binocular vision problems include: oculomotor dysfunction (poor tracking), accommodative dysfunction (poor eye focusing), and convergence insufficiency (poor eye teaming).

**Visual Processing**
Visual processing refers to the brain’s ability to understand and use visual information.

**Eye Health Concerns**
Eye health concerns in children include:

- Ptosis (drooping eyelid)
- Red eye/eyelid
- Cataract (clouding of the lens inside the eye)
- Optic nerve hypoplasia (incomplete development of the optic nerve)
- Eye conditions related to premature birth
- Eye conditions related to diabetes

Significant refractive errors, amblyopia, strabismus, and other ocular and visual diagnoses are more prevalent in children with systemic diseases (ex: diabetes, juvenile idiopathic arthritis) or neurodevelopmental disorders (ex: hearing impairment, cerebral palsy, learning disabilities, Attention-Deficit/Hyperactivity Disorder).

**Importance of Comprehensive Eye Exams**
Screenings are not a replacement for comprehensive eye exams. Yearly comprehensive eye exams with an eyecare professional are recommended for all school-aged children. The referral process from school health to an eyecare professional is key.
Set-up for Screening

• Space Requirements
  ➤ Quiet area, free from distractions
  ➤ Room with sufficient space to permit distance visual acuity test chart viewing without obstruction
  ➤ Well-lit room free from glare or shadows from windows or lights

![Diagram of vision screening setup]

• Suggested Supplies
  ➤ Chairs for screener and student
  ➤ Measuring tape or yard stick
  ➤ Masking tape or painters tape
  ➤ Stand or hook on wall for distance charts
  ➤ Pencils, pens, paper clips, stapler
  ➤ Rubbing alcohol or antibacterial wipes

• Recommended Personnel
  ➤ The school nurse or delegated personnel that is trained in vision screenings can complete a vision screening independently.
  ➤ Additional school staff or volunteers can be helpful for assisting the school nurse during a vision screening. Additional personnel may point at the distance visual acuity chart, which is especially helpful for young students. Additional personnel may also be used for recording data and organizing student flow during the screening.
### Equipment Needed

<table>
<thead>
<tr>
<th>Test</th>
<th>Equipment</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance Charts</td>
<td>HOTV optotype (single surround or crowded lines) (Kindergarten)</td>
<td><img src="image" alt="HOTV Chart" /></td>
</tr>
<tr>
<td></td>
<td>• matching card</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• flip chart or wall chart at 10 foot test distance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Chart design: single surround or crowded lines, pyramid arrangement of lines, 5 letter/line, has a 20/32 line (not 20/30)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEA optotype (single surround or crowded lines) (pre-verbal or non-verbal students)</td>
<td><img src="image" alt="LEA Chart" /></td>
</tr>
<tr>
<td></td>
<td>• matching card</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• flip chart or wall chart at 10 foot test distance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Chart design: single surround or crowded lines, pyramid arrangement of lines, 5 letter/line, has a 20/32 line (not 20/30)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SLOAN optotype (Grades 1 through 12)</td>
<td><img src="image" alt="SLOAN Chart" /></td>
</tr>
<tr>
<td></td>
<td>• Chart design: pyramid arrangement of lines, 5 letters/line, has a 20/32 line (not 20/30)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• wall chart at 10 foot test distance</td>
<td></td>
</tr>
<tr>
<td>Near Charts</td>
<td>HOTV near chart with cord (Kindergarten)</td>
<td><img src="image" alt="HOTV Near Chart" /></td>
</tr>
<tr>
<td>Test</td>
<td>Equipment</td>
<td>Example</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Near Charts</td>
<td>LEA optotype near chart with cord (Kindergarten)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="image1.png">Image</a></td>
</tr>
<tr>
<td></td>
<td>SLOAN near chart with cord (Elementary, Middle, and High School)</td>
<td><a href="image2.png">Image</a></td>
</tr>
<tr>
<td>Stereopsis</td>
<td>PASS Test 2 (Preschool assessment of stereopsis with a smile)</td>
<td><a href="image3.png">Image</a></td>
</tr>
<tr>
<td>Color Vision</td>
<td>Waggoner Color Vision Testing Made Easy or School Health HRR Color</td>
<td><a href="image4.png">Image</a></td>
</tr>
<tr>
<td></td>
<td>Screening Book</td>
<td></td>
</tr>
<tr>
<td>Test</td>
<td>Equipment</td>
<td>Example</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Occluders</td>
<td>Hand-held paddles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adhesive or slip-on eye patches or stickers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Occluder glasses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unacceptable Occluders: Paper fish-shaped occluders, tissues, cups (paper or plastic), hands</td>
<td></td>
</tr>
</tbody>
</table>

*All pictures from schoolhealth.com*
Screening

Recommendations for who should bypass screening (automatic referral)

- Children who should bypass vision screening include those with:
  - Readily recognized eye abnormalities
    - Examples: strabismus, ptosis
  - A known diagnosis of a neurodevelopmental disorder
    - Examples: hearing impairment, motor abnormalities such as cerebral palsy, cognitive impairment, autism spectrum disorders, or speech delay
  - Systemic diseases known to have associated eye disorders
    - Examples: diabetes and juvenile rheumatoid arthritis
  - A known family history of a first-degree relative with strabismus, amblyopia, or high refractive error
  - A history of premature birth or low birthweight (<31 weeks or 1,500 grams birth weight) who has not already had a normal comprehensive eye examination
  - Parents (or caregivers) who believe their child has a vision-related problem or have concerns regarding their child’s age-appropriate developmental or academic milestones
  - Students with an IEP or 504 Plan
    - A vision screening should be attempted for students with an IEP or 504 plan, however a referral for a comprehensive eye exam with an eyecare professional should be recommended, especially in cases where the IEP or 504 plan is applicable to development, vision and/or learning.

Warning Signs and Symptoms

- Children often do not know how they should see, so they may not report any symptoms.
- Children who exhibit the following signs or behaviors should be evaluated by an eye care professional or primary care physician. Continue to screen the child’s vision. The child should be referred to an eye care professional or primary care physician, even if the child passes vision screening.
  - Appearance Signs
    - Continually watering eyes
    - Red-rimmed, encrusted, or swollen eyelids
    - Cloudiness/haze
    - Unequal pupil size
    - Sties or infections on eyelids
    - Presence of white pupil. This can be associated with rare but serious eye diseases. The white pupil may be observed when looking directly at the individual’s eyes, or in his or her photograph
    - Possible eye injury. Watch for eyes that are reddened, bloodshot, blackened, bruised, swollen, or show evidence of lacerations or abrasions
Behavior Signs
- Body rigid when looking at distant objects
- Clumsiness or decreased coordination
- Thrusting head forward or backward while looking at distant objects
- Tilting head to one side most of the time
- Squinting or frowning when trying to focus
- Excessive blinking
- Closing or covering one eye while doing near work
- Holding books close to face when reading
- Sitting close to the television

Complaint Signs
- Headaches, nausea, or dizziness
- Blurred or double vision
- Burning, scratchy, or itchy eyes
- Sees blur when looking up after close work or when looking at a whiteboard
- Unusual sensitivity to light

Screening Components by Grade

Screening Components: kindergarten or at child’s first entry into school district
- Distance Visual Acuity
  - HOTV optotype wall chart at 10 foot test distance
  - LEA optotype charts are an acceptable alternative for pre-verbal or non-verbal children
- Near Visual Acuity
  - HOTV near chart with cord
- Stereoacuity
  - PASS Test 2
- Color vision
  - Color Vision Testing Made Easy

Screening Components: elementary, middle, and high school
- Distance Visual Acuity
  - SLOAN optotype wall chart at 10 foot test distance
  - Chart design: pyramid arrangement of lines, 5 letters/line
- Near Visual Acuity
  - SLOAN near chart with cord
- Stereoacuity
  - PASS Test 2
## Recommended Timeline for Screening

<table>
<thead>
<tr>
<th>Grade</th>
<th>Screening Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten (or first entry into school district)</td>
<td>Monocular Distance Visual Acuity</td>
</tr>
<tr>
<td></td>
<td>Binocular Near Visual Acuity</td>
</tr>
<tr>
<td></td>
<td>Stereoacuity</td>
</tr>
<tr>
<td></td>
<td>Color Vision</td>
</tr>
<tr>
<td>1st Grade</td>
<td>Monocular Distance Visual Acuity</td>
</tr>
<tr>
<td></td>
<td>Binocular Near Visual Acuity</td>
</tr>
<tr>
<td></td>
<td>Stereoacuity</td>
</tr>
<tr>
<td>2nd Grade</td>
<td>Monocular Distance Visual Acuity</td>
</tr>
<tr>
<td></td>
<td>Binocular Near Visual Acuity</td>
</tr>
<tr>
<td></td>
<td>Stereoacuity</td>
</tr>
<tr>
<td>3rd Grade</td>
<td>Monocular Distance Visual Acuity</td>
</tr>
<tr>
<td></td>
<td>Binocular Near Visual Acuity</td>
</tr>
<tr>
<td></td>
<td>Stereoacuity</td>
</tr>
<tr>
<td>7th Grade</td>
<td>Monocular Distance Visual Acuity</td>
</tr>
<tr>
<td></td>
<td>Binocular Near Visual Acuity</td>
</tr>
<tr>
<td></td>
<td>Stereoacuity</td>
</tr>
<tr>
<td>10th Grade</td>
<td>Monocular Distance Visual Acuity</td>
</tr>
<tr>
<td></td>
<td>Binocular Near Visual Acuity</td>
</tr>
<tr>
<td></td>
<td>Stereoacuity</td>
</tr>
</tbody>
</table>

### Comment on Instrument-Based Screening
- Insufficient data currently exists to support instrument-based screening for ages 6 years and older. Instrument-based screening can be used for children ages 6 years and older only for children who cannot participate in optotype-based screening. This age range may expand as high quality, peer-reviewed, published research emerges.
## Screening Referral Criteria

<table>
<thead>
<tr>
<th>Grade</th>
<th>Screening Test</th>
<th>Referral Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td>Monocular Distance Visual Acuity</td>
<td>Cannot identify 3 of 5 optotypes on 20/40 line.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A 2-line difference between the eyes even if they are both within the passing range.</td>
</tr>
<tr>
<td></td>
<td>Binocular Near Visual Acuity</td>
<td>Cannot identify 3 of 5 optotypes on 20/40 line.</td>
</tr>
<tr>
<td></td>
<td>Color Vision</td>
<td>Any miss (per manufacturer instruction for the book).</td>
</tr>
<tr>
<td></td>
<td>Stereoacuity</td>
<td>Cannot pass all cards.</td>
</tr>
<tr>
<td>1st Grade</td>
<td>Monocular Distance Visual Acuity</td>
<td>Cannot identify 3 of 5 optotypes on 20/32 line.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A 2-line difference between the eyes even if they are both within the passing range.</td>
</tr>
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<td>Binocular Near Visual Acuity</td>
<td>Cannot identify 3 of 5 optotypes on 20/32 line.</td>
</tr>
<tr>
<td></td>
<td>Stereoacuity</td>
<td>Cannot pass all cards.</td>
</tr>
<tr>
<td>2nd Grade</td>
<td>Monocular Distance Visual Acuity</td>
<td>Cannot identify 3 of 5 optotypes on 20/32 line.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A 2-line difference between the eyes even if they are both within the passing range.</td>
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<td>Stereoacuity</td>
<td>Cannot pass all cards.</td>
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<td>3rd Grade</td>
<td>Monocular Distance Visual Acuity</td>
<td>Cannot identify 3 of 5 optotypes on 20/32 line.</td>
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<td>Binocular Near Visual Acuity</td>
<td>Cannot identify 3 of 5 optotypes on 20/32 line.</td>
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<td></td>
<td>Stereoacuity</td>
<td>Cannot pass all cards.</td>
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</tbody>
</table>
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<tr>
<th>Grade</th>
<th>Screening Test</th>
<th>Referral Criteria</th>
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<tbody>
<tr>
<td>7th Grade</td>
<td>Monocular Distance Visual Acuity</td>
<td>Cannot identify 3 of 5 optotypes on 20/32 line. A 2-line difference between the eyes even if they are both within the passing range.</td>
</tr>
<tr>
<td></td>
<td>Binocular Near Visual Acuity</td>
<td>Cannot identify 3 of 5 optotypes on 20/32 line.</td>
</tr>
<tr>
<td></td>
<td>Stereoacuity</td>
<td>Cannot pass all cards.</td>
</tr>
<tr>
<td>10th Grade</td>
<td>Monocular Distance Visual Acuity</td>
<td>Cannot identify 3 of 5 optotypes on 20/32 line. A 2-line difference between the eyes even if they are both within the passing range.</td>
</tr>
<tr>
<td></td>
<td>Binocular Near Visual Acuity</td>
<td>Cannot identify 3 of 5 optotypes on 20/32 line.</td>
</tr>
<tr>
<td></td>
<td>Stereoacuity</td>
<td>Cannot pass all cards.</td>
</tr>
</tbody>
</table>
Screening Procedures

Distance Visual Acuity

About The Test
Visual acuity testing assesses the clarity of a student’s vision. Distance visual acuity testing measures vision for objects or text beyond around 6 feet. Visual acuity testing can help to identify significant eye diseases such as amblyopia, myopia, hyperopia, astigmatism, and anisometropia.

Set Up
- Equipment
  - Visual Acuity Chart
    - Kindergarten: HOTV optotype wall chart at 10 foot test distance (alternative: LEA optotype chart)
    - Grades 1-12: SLOAN optotype wall chart at 10 foot test distance
  - Occluder method
  - Chairs
- Lighting: normal room lighting that minimizes shadows and glare
- Glasses: student should wear his or her habitual spectacles for testing

Procedure
1. Seat the student 10 feet from the chart on the wall.
2. Ensure that the student is wearing his or her own glasses, if applicable.
3. Kindergarten: Give the student the matching card to hold on his or her lap. Introduce the student to the optotypes by showing them each letter.
4. Place the occlusion method over one eye, ensuring that the entire eye is occluded.
5. Direct the student’s attention to the chart across the room.
6. Starting at the top of the chart, ask the student to call out the first letter on each line. The student can do this independently, or the screener can point to each letter. Continue until the student begins to miss letters.
7. Starting 1-2 lines above the line with the last correct letter, ask the student to read the entire line. Continue until the student misses 3 or more letters on the line.
8. Record visual acuity as the smallest line with 3 or more correct letters.
9. Place the occlusion method over the other eye, ensuring that the entire eye is occluded.
10. Repeat steps 5-8 with the second eye.

Alternative Method
1. Seat the student 10 feet from the chart on the wall.
2. Ensure that the student is wearing his or her own glasses, if applicable.
3. Kindergarten: Give the student the matching card to hold on his or her lap. Introduce the student to the optotypes by showing them each letter.
4. Place the occlusion method over one eye, ensuring that the entire eye is occluded.
5. Direct the student’s attention to the chart across the room.
6. Ask the student to identify the letters on the 20/32 line (20/40 for kindergarten).
   a. If the student is able to correctly identify 3 of 5 letters on the 20/32 line (20/40 for kindergarten),
      continue testing for subsequent (smaller) lines. Record visual acuity as the smallest line with 3 or more
      correct letters.
   b. If the student is unable to correctly identify 3 of 5 letters on the 20/32 line (20/40 for kindergarten),
      move up to larger lines. Record visual acuity as the smallest line with 3 or more correct letters.

7. Place the occlusion method over the other eye, ensuring that the entire eye is occluded.

8. Repeat steps 5–6 with the second eye.

Referral Criteria
   • Kindergarten:
     › Cannot identify 3 of 5 optotypes on 20/40 line.
     › 2-line difference between the eyes even if they are both within the passing range.
   • Grades 1–12:
     › Cannot identify 3 of 5 optotypes on 20/32 line.
     › 2-line difference between the eyes even if they are both within the passing range.

Near Visual Acuity
About The Test
Visual acuity testing assesses the clarity of a student’s vision. Near visual acuity testing measures vision for
objects or text at around 16 inches. Visual acuity testing can help to identify significant eye diseases such as
amblyopia, myopia, hyperopia, astigmatism, and anisometropia. Near visual acuity can also help detect
binocular vision concerns that can interfere with reading and learning.

Set Up
   • Equipment
     › Visual Acuity Chart
       ◆ Kindergarten: HOTV optotype near chart with cord (alternative: LEA optotype chart)
       ◆ Grades 1–12: SLOAN optotype near chart with cord
     › Chairs
   • Lighting: normal room lighting that minimizes shadows and glare
   • Glasses: student should wear his or her habitual spectacles for testing

Procedure
1. This test is done binocularly (both eyes open and uncovered).
2. Seat the student and ensure that the student is wearing his or her own glasses, if applicable.
3. Use the attached cord on the chart to ensure that the near chart is held at the appropriate distance from
   the student’s eyes. Maintain this distance during testing.
4. Direct the student’s attention to the near chart.
5. Starting at the top of the chart, ask the student to call out the first letter on each line. The student can do
   this independently, or the screener can point to each letter. Continue until the student begins to miss
   letters.
6. Starting 1–2 lines above the line with the last correct letter, ask the student to read the entire line.
   Continue until the student misses 3 or more letters on the line.
7. Record visual acuity as the smallest line with 3 or more correct letters.
Alternative method
1. This test is done binocularly (both eyes open and uncovered).
2. Seat the student and ensure that the student is wearing his or her own glasses, if applicable.
3. Use the attached cord on the chart to ensure that the near chart is held at the appropriate distance from the student’s eyes. Maintain this distance during testing.
4. Direct the student’s attention to the near chart.
5. Ask the student to identify the letters on the 20/32 line (20/40 for kindergarten).
   a. If the student is able to correctly identify 3 of 5 letters on the 20/32 line (20/40 for kindergarten), continue testing for subsequent (smaller) lines. Record visual acuity as the smallest line with 3 or more correct letters.
   b. If the student is unable to correctly identify 3 of 5 letters on the 20/32 line (20/40 for kindergarten), move up to larger lines. Record visual acuity as the smallest line with 3 or more correct letters.
6. Place the occlusion method over the other eye, ensuring that the entire eye is occluded.
7. Repeat steps 5-6 with the second eye.

Referral Criteria:
- Kindergarten:
  - Cannot identify 3 of 5 optotypes on 20/40 line
- Grades 1-12:
  - Cannot identify 3 of 5 optotypes on 20/32 line

Stereopsis
About The Test
This test assesses the student’s depth perception at near. This is a good indicator of the student’s ability to use both eyes together.

Set Up
- Equipment
  - PASS Test 2
  - Polarized glasses
- Lighting: Normal room lighting that minimizes shadows and glare.
- Glasses: The student should wear his or her habitual spectacles for testing.

Procedure
1. Put the polarized glasses on the student. Polarized glasses are placed over the student’s own glasses, if applicable.
2. Optional: present Card A (demonstration card) and blank card side-by-side at eye level and 16 inches from the student’s eyes. Ask the student to identify which card has the smile.
3. Present Card B and blank card side-by-side at eye level and 16 inches from the student’s eyes. Ask the student to identify which card has the smile.
4. Shuffle the cards and present the cards 4 more times. The student should correctly identify the smile on at least 4 of 5 presentations.
5. Repeat steps 3-4 with Card C.
Referral Criteria
All grades: cannot pass all cards (cards B and C)

Color Vision Testing
About The Test
This test screens for red-green color deficiencies.

Set Up
- Equipment
  - Color Vision Testing Made Easy booklet or School Health HRR Color Screening Book
- Lighting: normal room lighting that minimizes shadows and glare
- Glasses: The student should wear his or her habitual spectacles for testing.

Procedure
Ask the student to identify the shapes on testing cards.
Follow manufacturer’s instructions for scoring.

Referral Criteria
All grades: any miss (per manufacturer instruction for the book)
Figure 1: Flowchart for Children Who Receive a Vision Screening


* "Likely" includes children who are inattentive, uncooperative, will not allow occlusion, or do not understand the task.

** "Unlikely" includes children with cognitive, physical, or behavioral issues that preclude rescreening, and those unable to be rescreened in a timely manner because of administrative or other issues. These children should be referred directly for a comprehensive eye examination.

*** "Rescreen" applies to untestable children who are likely to be able to complete a screening should be rescreened the same day. When a same-day rescreening is not possible they should be rescreened as soon as possible, but in no case later than 6 months.
Referrals and Follow Up

Students with vision concerns should be referred to an eye care professional. The referral is the most important component of the screening process. Vision screening is of limited value if follow-up eye examinations do not occur or treatment plans are not followed. Educating parents on the importance of professional follow-up is the most challenging aspect of the screening process, however it is the most critical. If the educational agency suspects that a student may have a vision condition that impacts their educational performance, the district’s special education director should be contacted. In these situations, the district may be responsible for facilitating and attaining an eye exam, as part of a comprehensive evaluation under the IDEA.

Follow Up Practices:
How follow-up is conducted is a decision best made locally. Each school or district will need to determine the most efficient and effective method for follow-up. Compliance and follow-up are more likely to occur if the process is systematic and efficient.

Tips for school nurses, teachers, or other appropriate staff include:
- Giving, not mailing or sending home in a backpack, referral letters to parents or caregivers.
- Ensuring all information given to parents or caregivers is unbiased, in their native language, and complies with health literacy and cultural competency guidelines.
- Discussing screening results and the reason for referral with parents or caregivers, in their native language.
- Providing parents or caregivers with educational material about the importance of arranging and attending an eye examination.
- Assist families with identification and mitigation of any barriers to care (e.g., lack of insurance, access to care, language barriers, etc.) Ensuring timely access to vision care is critical to avoiding delays in treatment that may lead to permanent vision loss or a decrease in visual ability. Providing a list of available community financial assistance resources, when necessary.
  - Private vision insurance
  - Medical insurance
  - Medicaid
  - Organizations/programs that provide funding (VSP sight for students, Lions Club, WY Give A Day program, Essilor’s changing life through lenses program, Elks club needy youth program, etc.)
- Develop plans of care and follow up when needed.
- Using follow-up letters, texts, e-mail, or telephone calls for incompletely documented referrals and treatment.
- Assisting families in finding eye care providers.
  - American Academy of Ophthalmology: www.aao.org/find_eyemd.cfm
  - American Optometric Association: www.aoa.org
  - Centers for Medicare and Medicaid Services: www.medicare.gov/physiciancompare
  - American Association for Pediatric Ophthalmology and Strabismus: www.aapos.org
  - All About Vision: www.allaboutvision.com/eye-doctor
  - College of Optometrists in Vision Development: www.covd.org

Prevent blindness training resources:
Training and Educator Resources
Summary

Timely identification and treatment of many vision disorders can prevent permanent vision loss as well as decrease the negative impact of early literacy skills in children. In accordance with the Individuals with Disabilities Education Act and Section 504 of the Rehabilitation Act of 1973, educational agencies are required to identify all students who have a disability that impacts their education. Vision screenings are a first step in identifying vision disorders in children, followed by the referral process to an eyecare professional. School and health personnel should collaborate with families in coordination of any eye care needed and support any treatment recommendations. Collaborative efforts by schools and families will assist in the best possible health and educational outcomes for students.
Appendices

Appendix 1: Equipment List
  Vision Screening Checklist

Appendix 2: Additional Resources for School Nurses
  Vision Quick Guide Chart
  Common Early Childhood Vision Disorders English (Educational materials/videos for students, parents, and nurses)
  Common Early Childhood Vision Disorders Spanish
  Flowchart for Children Who Receive a Vision Screening
  Glossary of Eye-Vision Terms English
  Glossary of Eye-Vision Terms Spanish
  Special Education Referral Form
  Annual Vision Report Tracking
  Referral Tracking Sheet
  Sign Up for VSPSight for Students Program
  Star Pupils Eye Health and Safety Curriculum (Curriculum and activities directed towards K-2, Grades 3-5, Grades 6-8)

Appendix 3: Referral Letters
  Example PASS Letter
  Example FAIL Letter with Referral and Consent for Release of Information

Appendix 4: Parent Information
  Parent Fact Sheet: Vision Screening Is Key to Healthy Development English
  Parent Fact Sheet: Vision Screening Is Key to Healthy Development Spanish
  Parent Flier: Signs of Possible Vision Problems in Children English
  Parent Flier: Signs of Possible Vision Problems in Children Spanish
  Parent Flier: How to Schedule an Eye Examination English
  Parent Flier: How to Schedule an Eye Examination Spanish

Appendix 5: References
  Prevent Blindness Position Statement on School-Aged Vision Screening and Eye-Health Programs
Resources

National Association of School Nurses
Prevent Blindness
American Academy of Pediatric Ophthalmology and Strabismus
American Optometric Association
School-Aged Vision: 6 to 18 Years of Age
Comprehensive Pediatric Eye and Vision Examination
Vision Screening Components Guide Review Team

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