

Vision Screening Guidelines

Missouri Coordinated School
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MO DHSS Health Office
Orientation.

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MISSOURI DEPARTMENT OF
**HEALTH &
SENIOR SERVICES**

Vision Screening Guidelines

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Objectives

- Discuss the purpose and characteristics of vision and hearing screening programs in schools.
- Identify the recommended screening schedule, procedures, and equipment.
- Explain the importance of rescreening, referrals, follow-up, and tracking of screening results.

Purpose of a Vision/ Hearing Screening Program

Seeing/ hearing impacts students' ability to learn!

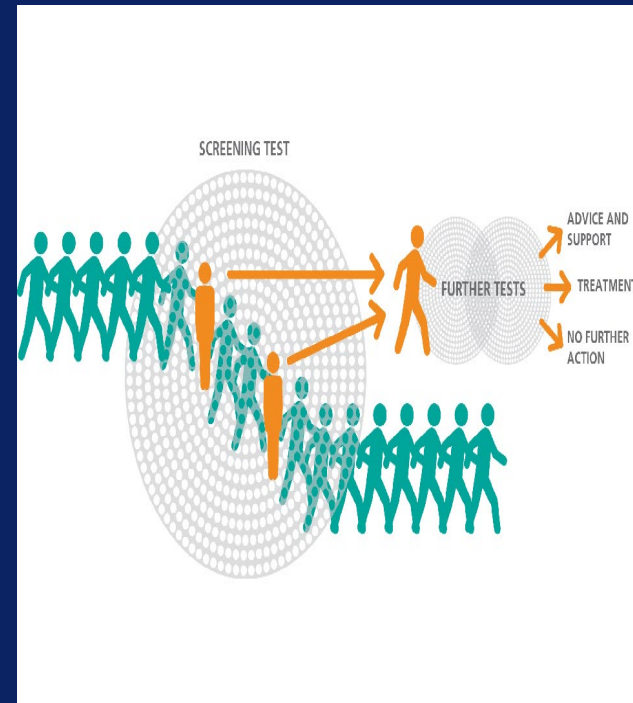
We can identify students who need a complete exam by a provider.

Early identification = improved outcomes for students.



Characteristics of Screening Programs

- Brief or limited evaluation of a group of individuals presumed to be normal
- Results must be communicated
- Follow -up on referrals for those “at risk” key component of screening
- Follow -up continued until problem is resolved



SCREENING SCHEDULE

Vision Screening
Guidelines Page 6

Grade	Screen	Type of Screening
All students new to district	Recommended	Age Appropriate
K	Recommended	Near & Distance Acuity, Random Dot E
1 st	Recommended	Near & Distance Acuity, Random Dot E
2 nd	Recommended	Near & Distance Acuity, Random Dot E
3 rd	Recommended	Near & Distance Acuity, Random Dot E
Every other year after 3 rd grade	Recommended as time permits	Near & Distance Acuity

Missouri Vision Screening Protocol

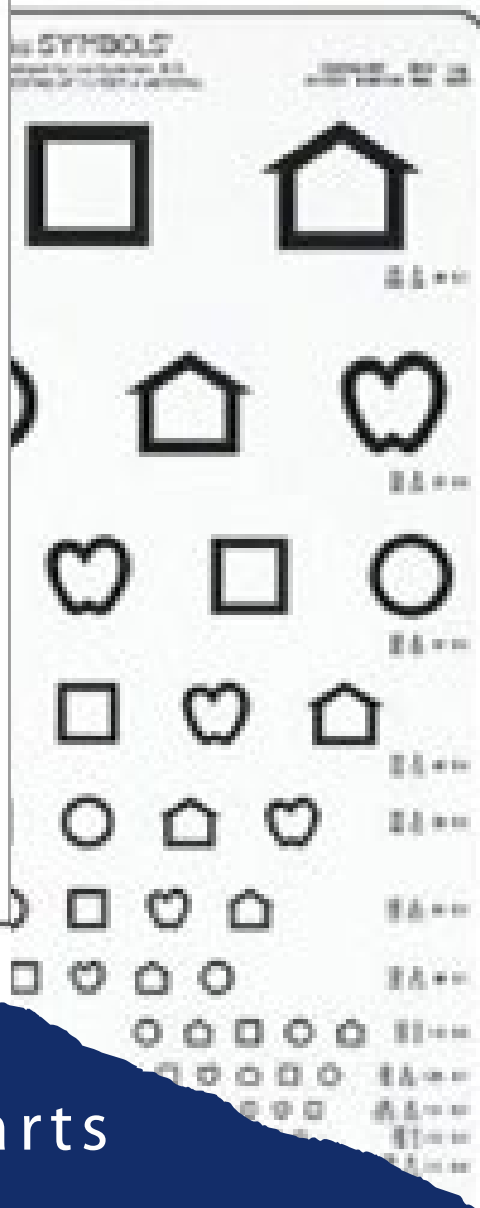
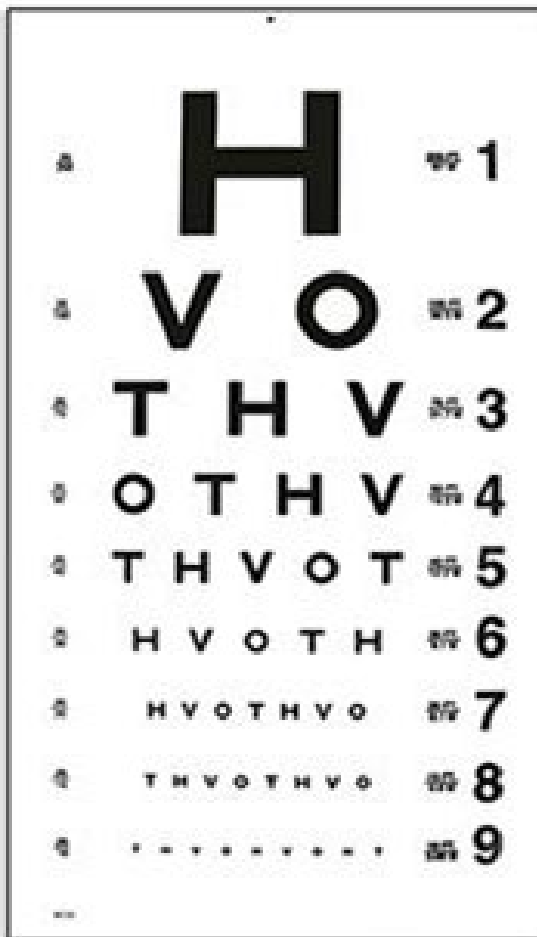
Distance Acuity, Near Acuity and Stereopsis

Function to be Evaluated	Specific Screening	Recommended Screening Procedure	Passing Criterion
Distance Visual Acuity	Letter Charts Symbol Charts The chart includes a 20/25 line. It is important to choose a developmentally appropriate chart	Screening Distance: 10 feet or 20 feet (chart determines distance) Conditioning: (performed binocularly) Screening Procedure: (performed monocularly)	Preschool: 20/40 Kindergarten: 20/40 Grades 1 – 12: 20/30 To receive credit for a line, the child must identify one more than half of the letters/symbols on that line.
Near Visual Acuity	Letter Charts Symbol Charts The chart includes a 20/25 line. It is important to choose a developmentally appropriate chart	Screening Distance: (see chart recommendations) Conditioning: (performed binocularly) Screening Procedure: (performed monocularly)	Preschool: 20/40 Kindergarten: 20/40 Grades 1 – 12: 20/30 To receive credit for a line, the child must identify one more than half of the letters/symbols on that line.
Stereopsis/Binocular	Random Dot E	Screening distance: 40 inches all screening, including prescreening, should be done binocularly with the polarized glasses on. Conditioning: Screen the child's ability to perform the screening by having the child identify the location of the three-dimensional "E" correctly on four out of five presentations. Screening procedure: Screen the child's ability to identify the location of the Stereo E. Five presentations should be used, varying the location in a random manner	Child must locate Stereo E on four out of five presentations. Done binocularly with the polarized glasses on.

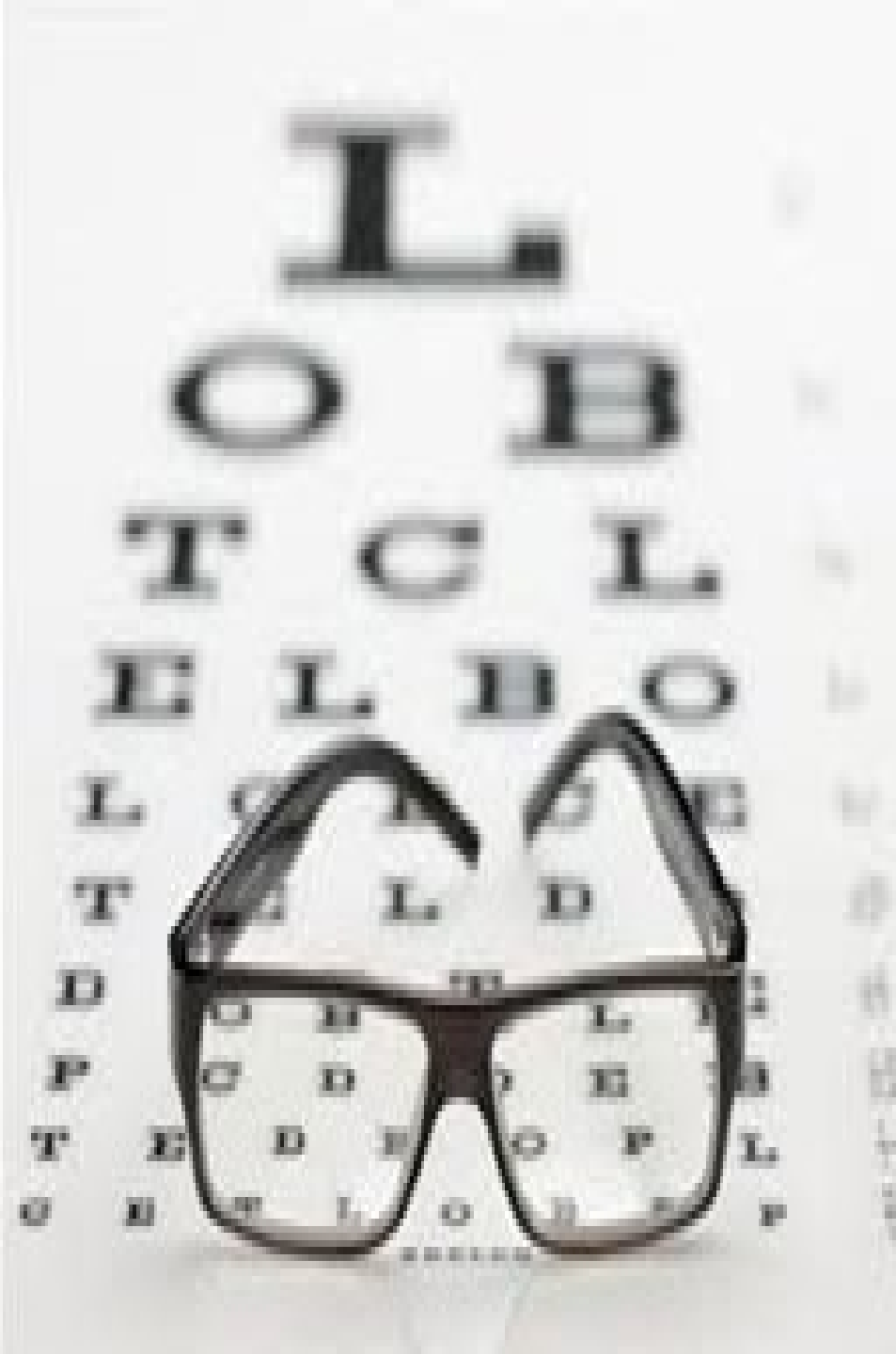


Visual Acuity





Examples of Vision Charts



Distance Visual Acuity Screening

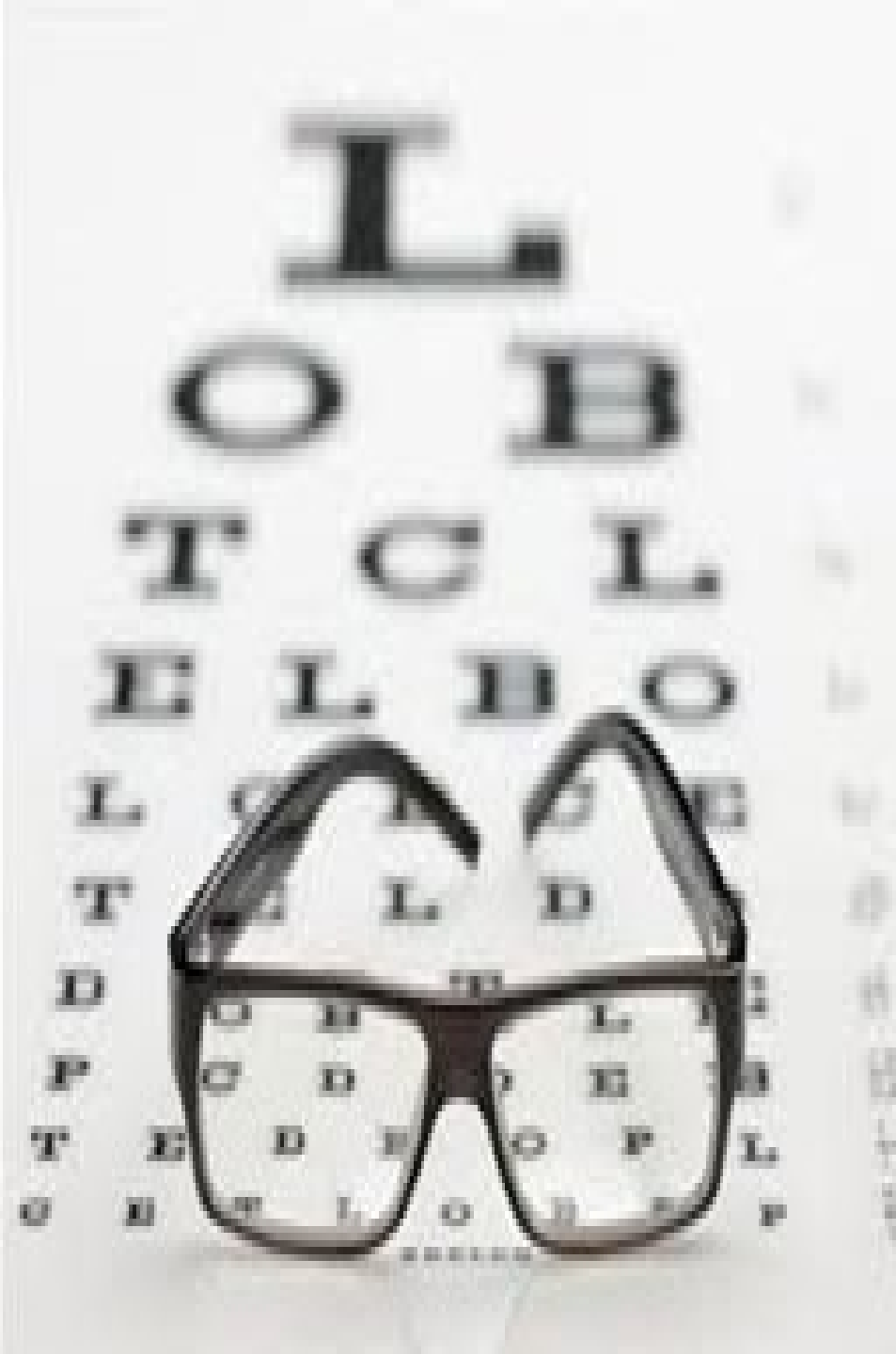
Purpose

- Screen for clearness of vision when looking in the distance
- Detects
 - Myopia (nearsightedness)
 - Amblyopia (weakness of sight, lazy eye)
 - Astigmatism (blurred vision)

Equipment

- Distance chart for 10 or 20 feet (should include 20/25 line)
 - Choose according to student's developmental level
 - HOTV, Snellen, Sloan, Tumbling E, LEA Symbol, Lighthouse
- Occluder (e.g., paper cup, paper patch, palm of hand with tissue)
- Antibacterial wipes

Antibacterial Wipes, Occluder



Location

- Quiet with no distractions
- Well lit and free from glare
- Suggestions
 - Room 5 feet longer than distance for screening tool
 - Minimum of 8-10 feet between stations if multiple stations

Setup

- Chart at student's eye level
 - May be seated or standing
- Mark off a 10-20 feet distance with tape (distance depends on chart)
 - Position heels or back legs of chair on tape



Distance Visual Acuity Screening

Procedure

- Orient student to the screening
- Demonstrate use of occluder
- Ask if student wears glasses. If yes, screening should be done with glasses on (be sure to mark the form)
- Watch carefully that student is not peeking, tilting head, squinting or leaning head or torso forward
- Begin by screening right eye with left eye occluded
- Instruct to keep both eyes open and read the selected letter or line of letters with the uncovered eye.
- Begin at 20/50 line and move down to 20/20 line



Procedure (cont.)

- Move upward if student unable to read 20/50 line
- Do not use marking device as pointer to avoid leaving distracting marks on chart
- Student must identify or match one more than half of the letters/symbols on a line
- Record results including the line number for the last line read correctly with each eye
- Repeat procedure for left eye
- If student is unsuccessful, he or she should be rescreened within 14 - 21 days

DISTANCE VISUAL ACUITY REFERRAL CRITERIA

A FAILED SCREENING FOLLOWED BY A FAILED RE-SCREENING
SHOULD BE REFERRED FOR FURTHER EVALUATION

Grade	Criteria
Kindergarten	Each eye must see at least the 20/40 line.
1 st – 12 th grade	Each eye must see at least the 20/30 line.

DISTANCE VISUAL ACUITY

REFERRAL CRITERIA

IMPORTANT EXCEPTION

Refer if
there is a
two-line
difference

One Eye	Other Eye	Results
20/20	20/20	Pass
20/25	20/25	Pass
20/30	20/30	Pass
20/20	20/25	Pass
20/20	20/30	Refer – 2 line difference

Near Visual Acuity Screening



Purpose

- Screen for near visual acuity
- Detect excessive hyperopia (farsightedness)

Equipment

- Near vision chart chosen according to student's developmental level (should include 20/25 line)
- Occluder (e.g., paper cup, paper patch, palm of hand with tissue)
- Antibacterial wipes

Location

- Quiet and no distractions
- Well lit and free from glare

Near Visual Acuity Screening

•Procedure

- Orient student to the screening
- Demonstrate use of occlude, chart should be 16 18 inches
- Ask if student wears glasses. If yes, screening should be done with glasses on (be sure to mark the form)
- Watch carefully that student is not peeking, tilting head, squinting or leaning head or torso forward
- Begin by screening right eye with left eye occluded
- Instruct to keep both eyes open and read the selected letter or line of letters with the uncovered eye.
- Begin at 20/50 line and move down to 20/20 line
- Ask the student to name or read the letter or symbols on each line as directed.



Near Visual Acuity Screening

- Procedure (cont.)

- Move upward if student unable to read 20/50 line
- Do not use marking device as pointer to avoid leaving distracting marks on chart
- Student must identify or match one more than half of the letters/symbols on a line
- Record results including the line number for the last line read correctly with each eye
- Repeat procedure for left eye
- If student is unsuccessful, he or she should be rescreened within 14 -21 days



NEAR VISUAL ACUITY REFERRAL CRITERIA

A failed screening
followed by a
failed re-
screening should
be referred for
further evaluation

Grade	Criteria
Kindergarten	Each eye must see at least the 20/40 line.
1 st – 12 th grade	Each eye must see at least the 20/30 line.

NEAR VISUAL ACUITY REFERRAL CRITERIA

IMPORTANT EXCEPTION

Refer if there is
a two-line
difference

One Eye	Other Eye	Results
20/20	20/20	Pass
20/25	20/25	Pass
20/30	20/30	Pass
20/20	20/25	Pass
20/20	20/30	Refer – 2 line difference

Binocularity/Stereoscopic Vision Screening

- What is Binocular Vision?
 - Includes ocular alignment and stereo acuity
 - Screening determines how well eyes function together
- Purpose of Screening
 - to determine if student has adequate binocularity
- Equipment
 - Random Dot (RDE) Stereotest Kit
 - Antibacterial wipes



Random Dot E Kit Equipment





Random Dot E

With glasses in place, children with good alignment and normal binocular vision will be able to see the stereo “E” in 3-dimensions. (page 11)



Random Dot E

- **Location and Setup**

- Make sure that the test distance between the student and the cards is carefully measured at 40 inches.
- Make sure that there is bright room lighting.

- **Procedure**

- Have student put on stereo glasses.
- If the student wears glasses, the stereo glasses should be placed over the student's own glasses. (Indicate on form)
- Be sure the student keeps head straight when viewing slides



- Hold model E *demonstration plate* at a distance of a 40 inches in front of student.

Random Dot E

- Point to the "E" and say to the student, "Tell me what you see."

Random Dot E

- Pick up the blank test plate and hold it next to the *demonstration plate*.
- Ask the student to point to the plate with the raised, embossed "E".



Random Dot E

- Shuffle the plates behind your back and repeat the procedure 4 more times, holding the plates side by side or above and below each other. Vary the position.



Random Dot

E

Replace the Model E slide with the Raised/Recessed Stereo slide when you determine that the student understands the procedure

- Repeat the procedure
- Student passes the stereo screening if he/she correctly identifies the location of the stereo E on at least 4 of the 5 presentations .



VISION SCREENING DEMONSTRATION VIDEO



Children's Vision Screenings

with
Dr. Mark Curtis

Re-Screening Guidelines

Indicated for any student failing any part of the initial screening (distance, near or binocularity)

Eliminates students who failed initial screening due to factors such as fatigue, illness, anxiety, misunderstanding or distractions

Should be done within 14 -21 days after initial screening

Rescreening procedures are the same as initial screening procedure

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Referrals

Indicated if student fails any portion of the rescreening

Notify parent/guardian in person or by phone prior to sending written referral

Written referral should be sent to the parent/guardian within one week after the rescreening

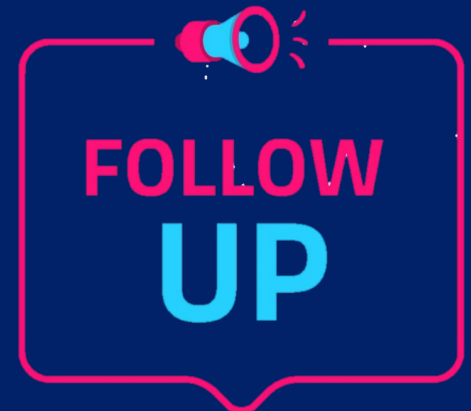
Important to notify classroom teacher if referral sent so that classroom accommodations can be implemented



Follow -Up and Tracking Guidelines

- **Most important component of any screening**
- **Tracking system**
 - Assures students referred receive appropriate treatment/services
- **Follow -up** with phone call if no information about the referral received after 3 -4 weeks
- **Continue to contact** parent/guardian periodically until notified of disposition of referral
- Important for nurse to be familiar with **community resources** for those needing financial assistance
- **Document** all aspects of process in health record

Guidelines Pages 15 -16



Preparing Students for Vision Screening Resource

**Let's get ready
for your vision
screening!**



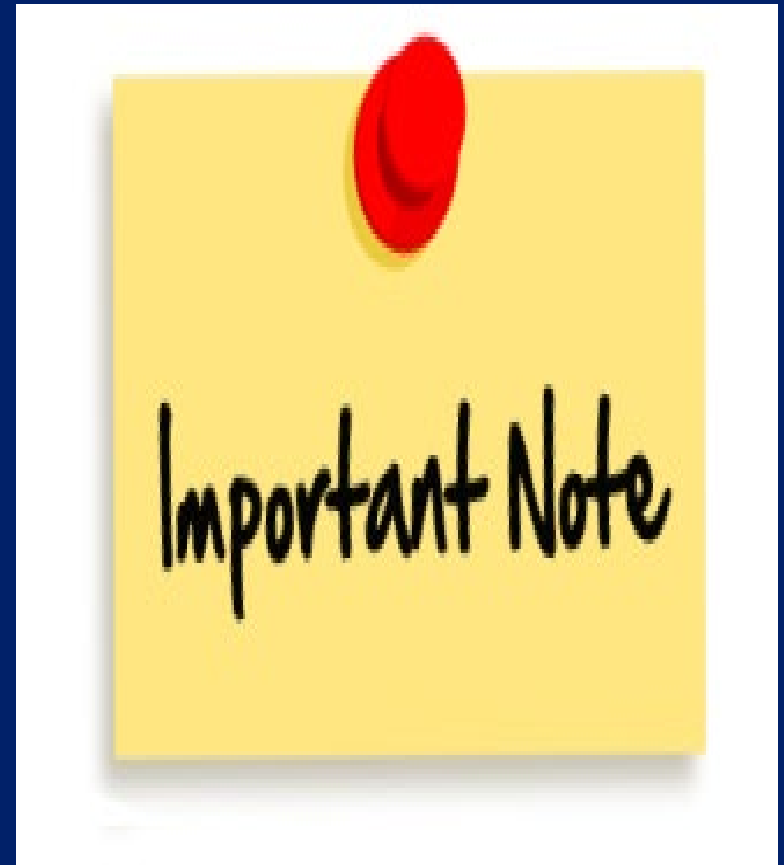
**Turn on your sound to
hear the instructions.**



◀ PREV

NEXT ▶

- Missouri School Vision Screening Guidelines – instrument -based screenings are not recommended. (examples: Titmus, Stereoptic, SPOT, photoscreeners)
- If you are using an outside agency for screenings, be sure to review your board policy regarding screenings and volunteers. Volunteers may be required to have a background check. Using outside



References



- DHSS Vision Screening Training PowerPoint
<https://health.mo.gov/living/families/schoolhealth/pdf/VisionScreeningTraining.pdf>
- DHSS Vision Screening Guidelines
<https://health.mo.gov/living/families/schoolhealth/pdf/GuidelinesVisionScreening.pdf>
- American Association for Pediatric Ophthalmology and Strabismus <http://aapos.org>