

Vision Screening

Los Angeles USD
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Los Angeles County
Office of Education



Presenter: Susan Chaides





Outcomes

Participants will be able to:

1. Describe guidelines for vision screening
2. Describe techniques for vision screening in the school setting
3. Explain the screening process and referral criteria for vision screening



Vision Guidelines

- Ed Code 49452, 49455, 49456
- 5 CCR § 590-596
- *A Guide For Vision Screening In California Public Schools*

A Guide for Vision Screening in California Public Schools



California Department of Education
1430 N Street
Sacramento, CA 95814-5901

April 2019



Vision Screening

- Students in grades TK/K, 2, 5, 8
- New students – upon first enrollment in a CA school
- Special Education
 - ✓ Initial evaluation
 - ✓ Every 3 years thereafter
- Students suspected of having vision deficits

Legal Requirements for Periodicity of the School Screening Program

Grade Level	Distance Vision	Near Vision	Color Vision Deficiency
Transitional Kindergarten/ Kindergarten	Required	Required	Not Required
Grade 1	Not Required	Not Required	Required
Grade 2	Required	Required	Required in subsequent years only if not screened in grade 1
Grade 5	Required	Required	See Above
Grade 8	Required	Required	See Above
Special Education	Required	Required	Required

Vision Screening Program

Requirements include:

- ✓ Evidence-based procedures
- ✓ Document results
- ✓ Observe possible eye or vision problems
- ✓ Screen students whose school performance indicates suspected vision problem
- ✓ Rescreen if failed screening. If screened by school nurse, physician, osteopath or optometrist, rescreen not required
- ✓ Notify parents/guardians of failed screening
- ✓ Assist with follow-up care as needed



Authorized Screeners

- Physician, Osteopath
- Optometrist, Ophthalmologist
- Credentialed School Nurse
- Certificated employee with certified vision training
- Authorized contracted agency
 - ✓ Meet criteria for authorized screeners



Screening Tests



- Visual Acuity
 - ✓ Grades TK/K – both distance & near acuity, threshold
- Grades 1-12 – both distance and near acuity at critical line
- Color Vision – 1st grade (conducted once)



Vision Screening Procedures

External Observations: Signs and Symptoms of a Possible Eye or Vision Problem

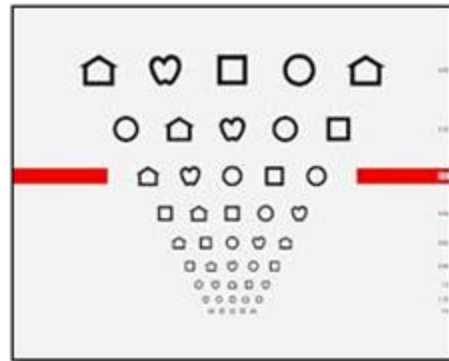
Student Signs	Student Symptoms
<ul style="list-style-type: none">• Eye turns in or out at any time• Pupils/eyes appear to be different sizes• Red eyes and/or swollen eyelids• Excessive tearing• Droopy eyelids• Discharge from the eyes• Sensitivity to light• Excessive Blinking• Squints, closes, or covers one eye• Squints to see board or far away• Frequent headaches• Abnormal head posture or head tilt	<ul style="list-style-type: none">• Double vision• Blurry vision• Hazy vision• Difficulty seeing small print• Eye pain



Distance Visual Acuity

- Students in grades TK/K, 2, 5, 8
- New students – upon first enrollment in a CA school
- Special Education
 - Initial evaluation
 - Every 3 years thereafter

Equipment



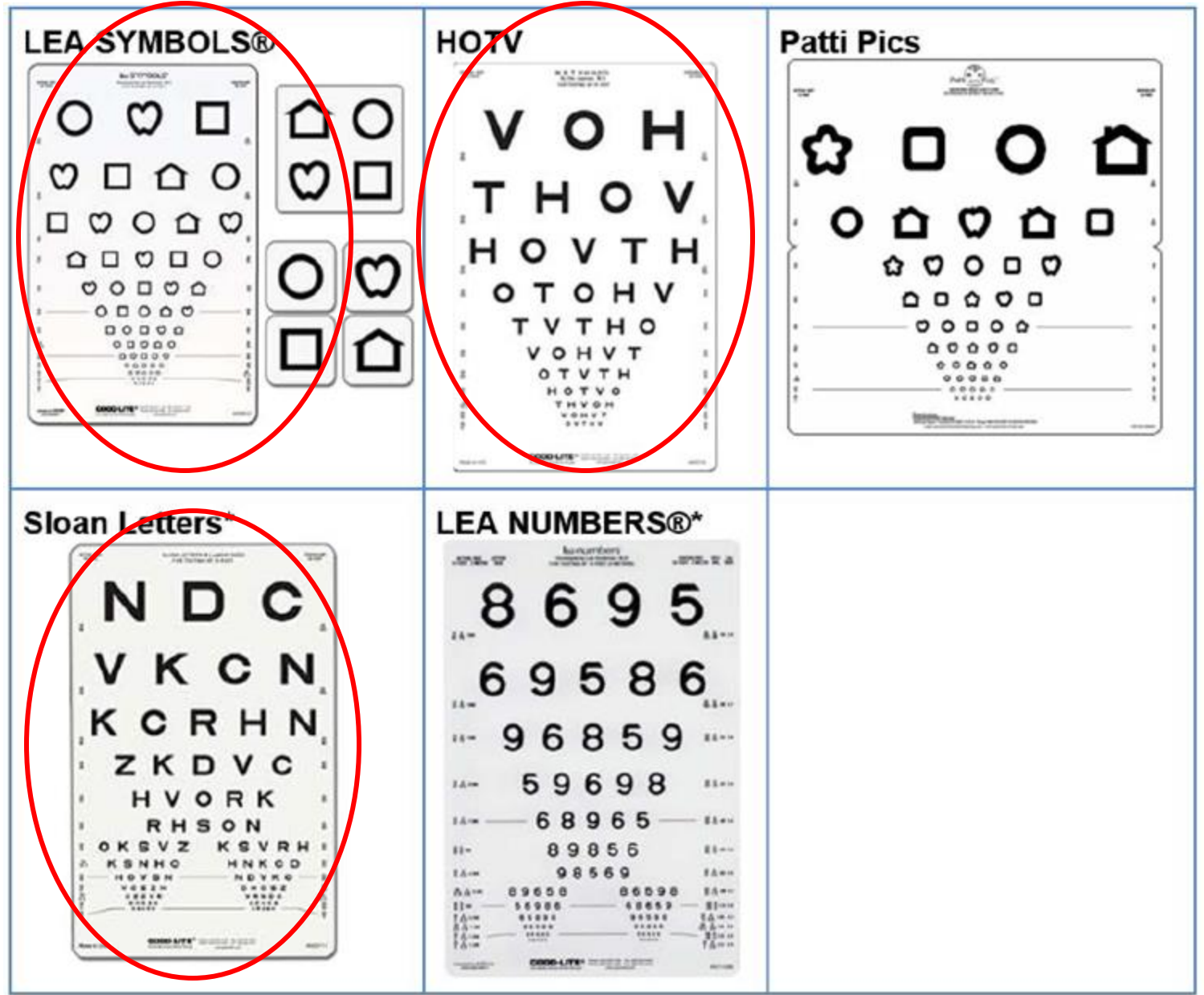
- Optotype chart
 - ✓ 10-foot charts
- Computer vision software program

Evidence-Based Pediatric Optotypes

Currently Acceptable Optotypes	Not Acceptable Optotypes
LEA SYMBOLS®	Allen pictures
HOTV	Tumbling E
Sloan Letters*	Blackbird
LEA NUMBERS®*	Landolt C
Patti Pics	“Sailboat” or Kindergarten Chart
Snellen*	Wright figures®
N/A	“House, Apple, Umbrella” or Lighthouse symbols

*Indicated in children seven years and older

Acceptable Optotypes



Occluders

Adhesive Eye Patch	2-in Hypoallergenic Surgical Tape	Occluder Glasses	Paddle Occluder	Mask Occluder
				

Procedure

- 10 feet distance – from chart to middle of student's foot, at eye level
- Screen with glasses if student wears for viewing
- Monocular – one eye
- Occlusion – must use occluders
 - ✓ No hand, cup, paper/tissue
- Read critical line (5yo- threshold)





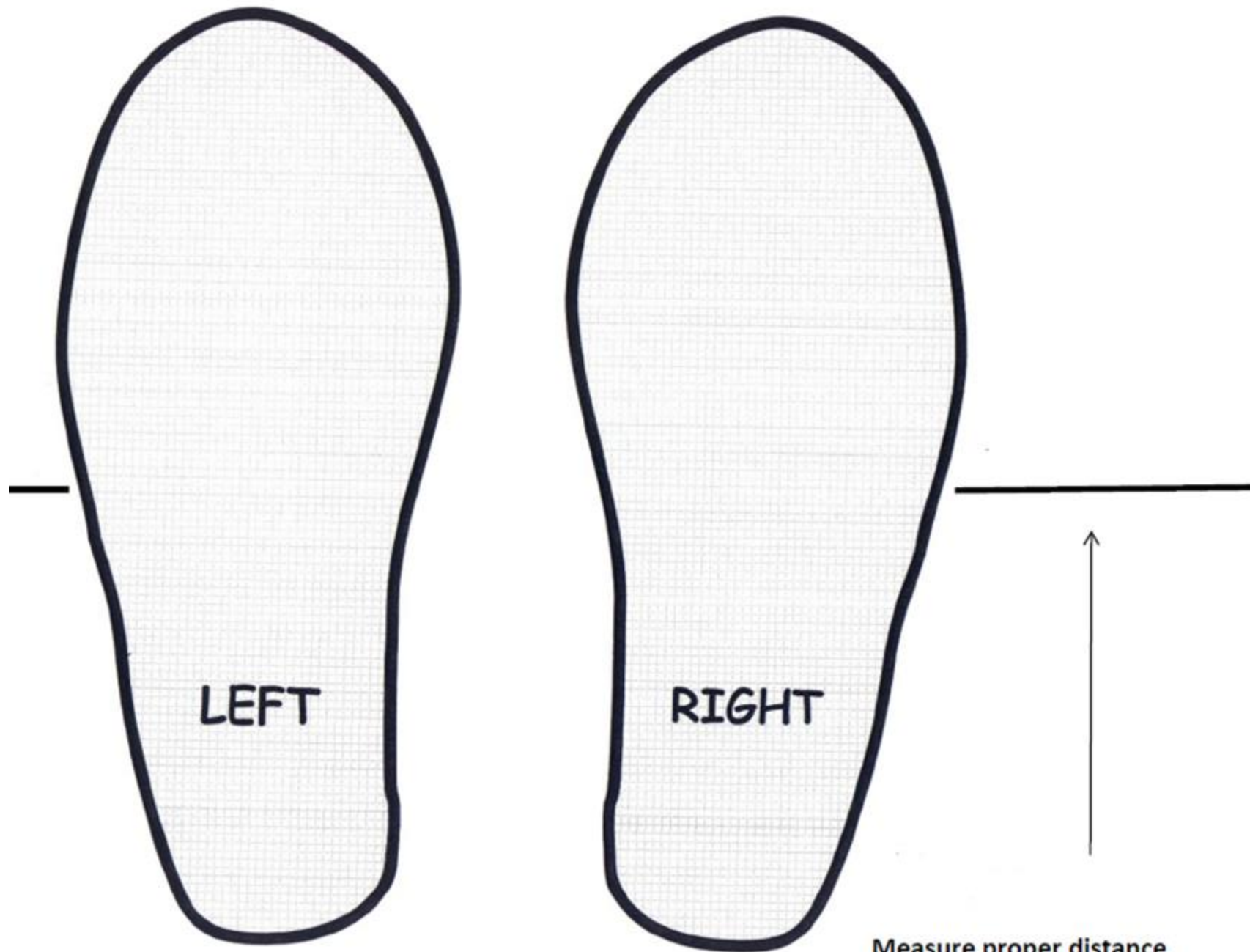
Definitions

Critical Line Screening – visual acuity screening where identify 3/5 optotypes on age specific line

- ✓ 4 years – 20/40
- ✓ 6+ years - 20/32

Threshold Screening – visual acuity screening, start at top of chart, read down chart to lowest line can identify 3/5 optotypes

- ✓ 5 years – 20/32



Measure proper distance
from chart to middle of
child's foot

Pass Criteria – Distance

- Must identify 3/5 optotypes on a line
 - ✓ TK-4 years – 20/40, critical line
 - ✓ TK/K 5 years – 20/32, threshold
 - ✓ 1st & up 6 years+ - 20/32, critical line
- Documentation for vision screening at critical line
 - ✓ Distance Right Pass (P) / Fail (F)
 Left Pass (P) / Fail (F)
- Documentation for vision threshold
 - ✓ Visual acuity line passed – 20/32 or ?

Developmentally Appropriate Referral Criteria*

Group	Threshold Screening Referral Criteria	Critical Line Screening Referral Criteria (Refer if miss 3 or more optotypes on line)
Preschool (3 y/o)	20/60 or worse in either eye	Distance 20/50 line
Preschool / TK (4 y/o)	20/50 or worse in either eye	Distance 20/40 line
TK / Kindergarten (5 y/o)	20/40 or worse in either eye	Recommend threshold or photoscreen
1 st Grade and up	20/40 or worse in either eye	Distance 20/32 line
All age groups	<p>\geq Two-line difference between eyes (e.g., 20/20, 20/32).</p> <p>Students who cannot be screened are considered an automatic fail and should be referred for a comprehensive eye exam.</p>	<p>Near 20/32 line</p> <p>Students who cannot be screened are considered an automatic fail and should be referred for a comprehensive eye exam.</p>



Retest Criteria

If initial screening not done by school nurse, physician or optometrist:

- School Nurse to retest
- Refer if fail 2nd vision screening

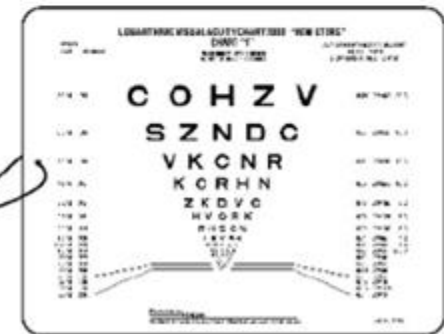
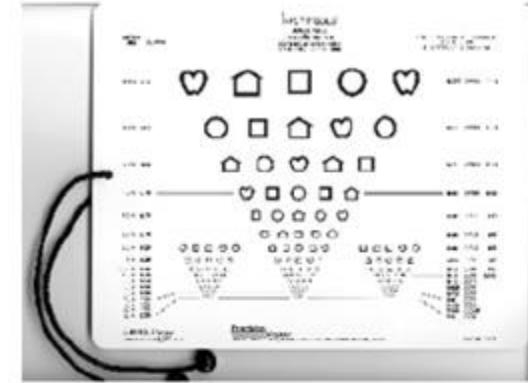


Near Visual Acuity

- Grades TK/K, 2, 5, 8
- New students – upon first enrollment in a CA school
- Special Education
 - Initial evaluation
 - Every 3 years thereafter

Equipment

- Near vision card/chart
 - ✓ 16 inches
 - ✓ Sloan Letters, LEA Symbols





Procedure

- Hold cord to temple – 16 inches
 - ✓ Hold taut
- Screen with glasses if student wears for viewing
- Binocular – both eyes together
- Read critical line 20/32



Pass Criteria – Near

- Must identify 3/5 optotypes on 20/32 critical line
- Documentation for vision screening at critical line
 - ✓ Near Both eyes Pass (P) / Fail (F)



Color Vision Deficiency Screening

- 1st grade male students
- Conduct once

Equipment

- Color vision charts
 - ✓ Use soft paint brush or cotton tipped applicator to trace path

Color Check Complete Vision Screener	Ishihara Color Deficiency Plates	Color Dx Pediatric	HRR Pseudoisochromatic Plates
			

Higher sensitivity and specificity



Procedure



- Follow manufacturer's instructions for screening
- Demonstrate practice plate
- Student practice with remaining practice plates
- May use soft paint brush or cotton swab to trace shapes

Pass Criteria – Color Vision

- If student does not pass color vision deficiency screening
 - ✓ No referral needed
 - ✓ Inform parents
 - ✓ Inform teachers & counselors - may adjust educational materials that require color discrimination
- Documentation for Color Vision Screening
 - ✓ Color Vision Pass (P) / Fail (F)



Instrument Based Screening

Useful in students who are:

- Younger (e.g., preschool) or pre-literate
- Have special needs or developmentally delayed
- Unable to be screened with traditional optotype-based visual acuity screening

Photoscreening

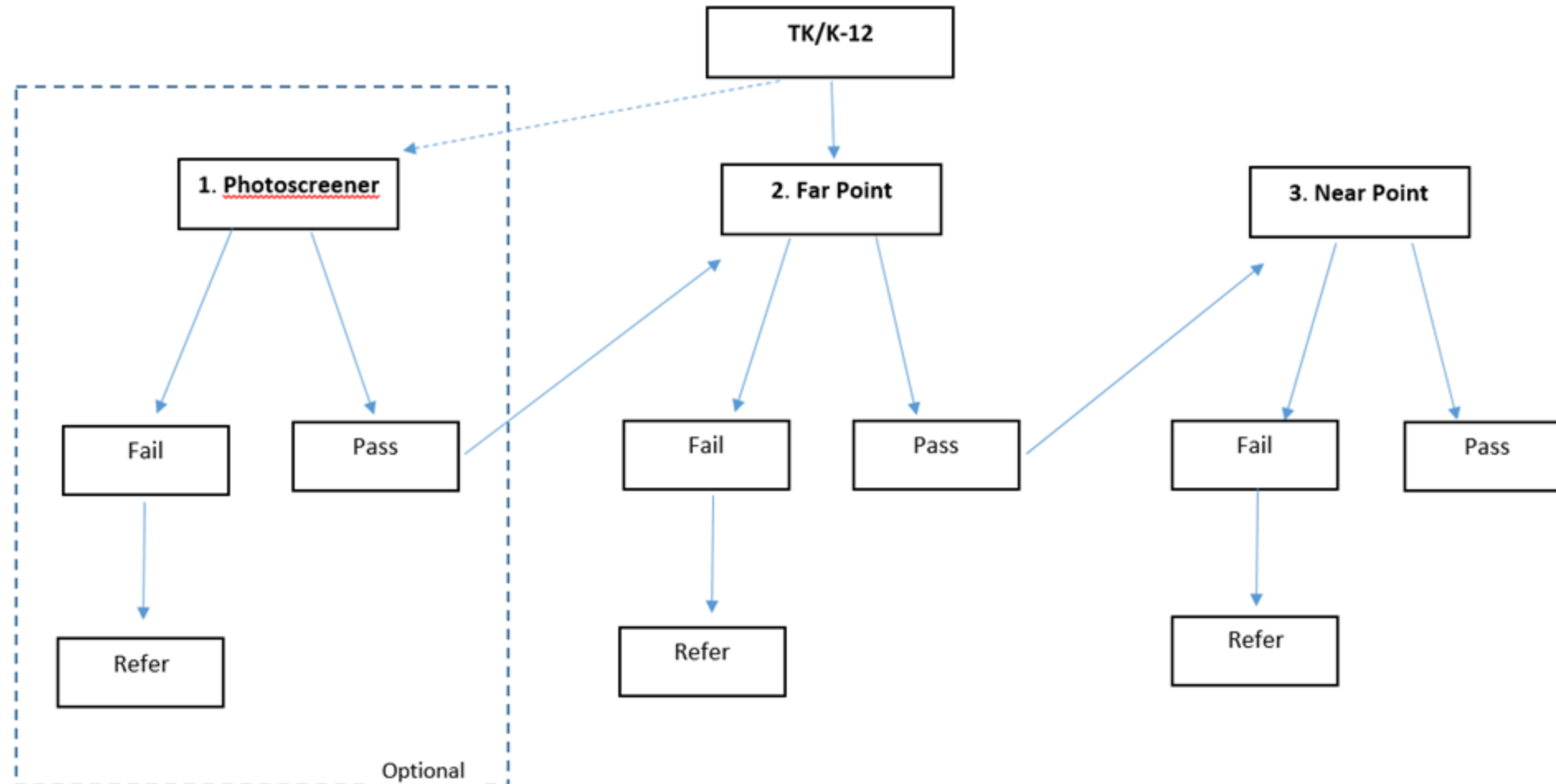
- May use if MOU with optometrist or ophthalmologist
- Must be properly trained
- Preferred for younger children, students w/ special needs or developmental delays
- Can be used for TK/K-12, but does not replace visual acuity screening





Vision Screening Flow Chart

With Phoscreener





Functional Vision Screening for Students with Special Needs

- Functional Vision Screening may be considered for students unable to test
- As a minimum, this includes:
 - ✓ Review of medical record
 - ✓ Consultation with parent and teacher
 - ✓ Classroom observation

Criteria – Functional Vision

- Referral for comprehensive eye exam appropriate due to high prevalence of vision disorders in students with special needs
- Re-screening within six months or referral for comprehensive eye exam
- If no impact on classroom participation - referral may not be needed



Optional Tests

- Near Point of Convergence
- Stereopsis (depth perception)



Waiver

- Parent may request to waive vision screening
- Options:
 - ✓ Parent may present certificate from physician or optometrist as evidence of vision screening (visual acuity, color vision)
 - ✓ Parent files written statement - will not consent to physical examination of child



QUESTIONS



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