



American Association for Pediatric Ophthalmology and Strabismus (AAPOS) Kit Vision Screening Procedures



For Children Ages 3 Years and Older



AAPOS Vision Screening Kit

- Acuity charts for threshold or critical line screening:
 - Sloan letters
 - LEA symbols or HOTV letters
- Occluder patches/glasses/paddle
- 10 foot measuring cord
- Matching response card
- Informational DVDs





Threshold Screening

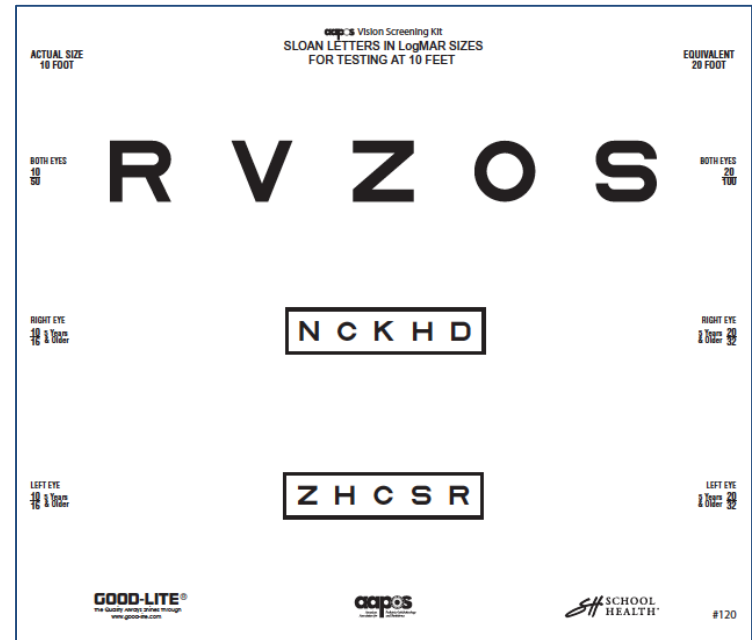
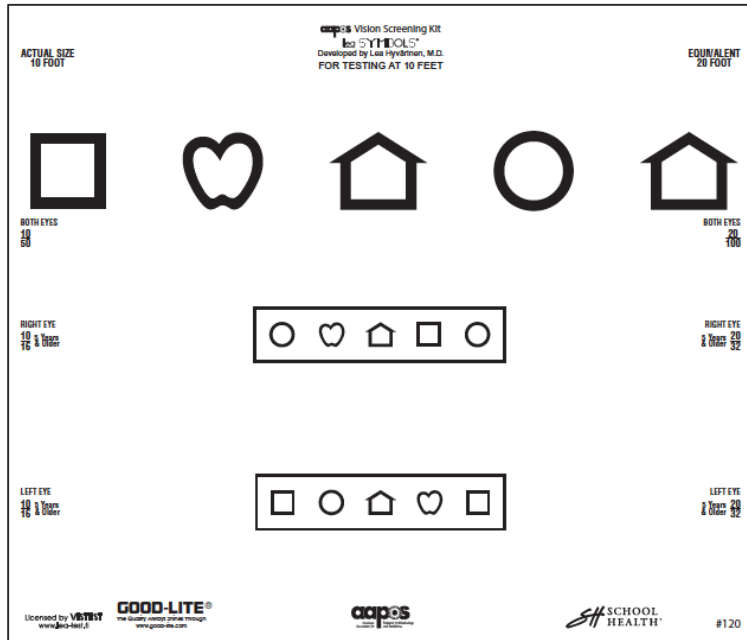
- Reading down the eye chart as far as possible.
- Threshold line is the smallest line child can pass.
- Can identify 2-line difference between the eyes.





Critical Line Screening: **FASTER**

- Only read a single “critical” line with each eye.
- Each chart has two boxed “critical lines” - one for each eye. The top line of large optotypes (symbols/letters) is for practice before starting screening.

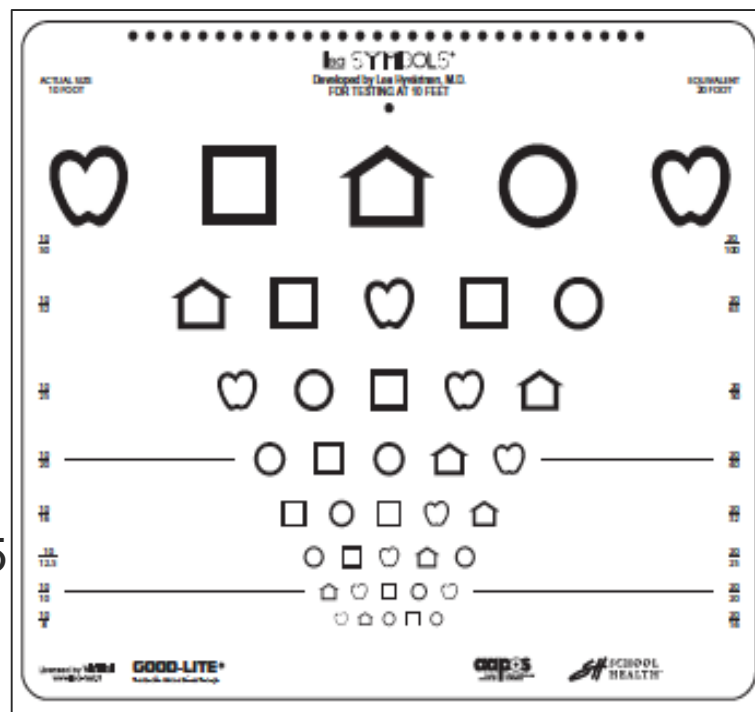




LEA Symbols and Sloan Letters Charts

- 10/xx on left side of chart is screening distance.
- 20/xx on right side of chart is Snellen equivalency and the number to document.

10/50
10/32
10/25
10/20
10/16
10/12.5
10/10
10/08



20/100
20/63
20/50
20/40
20/32
20/25
20/20
20/16



Procedures

- LEA Threshold: Slides 8-17
- LEA Critical: Slides 18-26
- Sloan Threshold: Slides 27-36
- Sloan Critical: Slides 37-42



LEA Symbols – Threshold Screening

1. May use with children age 3 years and older who are unable to recognize letters.
2. Use 10 foot measuring cord to determine distance between the chart and the child's eyes.
3. Child may stand or sit on a chair.
4. Screener may hold or hang the chart at child's eye level.



LEA Symbols – Threshold Screening

5. Ask child to identify symbols on the 20/100 line with both eyes uncovered. Make sure child understands the screening procedure.
 - Child may choose the name for each symbol.
 - If child does not know the name of a symbol, screener can give two choices and have child select one (e.g. apple or heart, circle or oval).
 - Children who are shy or nonverbal have the option to use the matching response card to match the symbol the screener is pointing to on the chart.



LEA Symbols – Threshold Screening

6. Use adhesive patch to cover the left eye.
 - If patches are not available or not tolerated, use occluder glasses.
 - For children 10 years and older only, may use black paddle occluder.

7. When pointing to symbols, **briefly point to and quickly remove pointer**. Leaving the pointer at the symbol makes the symbol easier to identify, which may lead to missed visual disorders.



LEA Symbols – Threshold Screening

8. Beginning at the top line, ask the child to identify the first symbol on the **left** side of each line. Move down the chart until the child misses a symbol.
9. When a symbol is missed, return to the line above and ask the child to identify ALL symbols on that line.
 - If 3 or more symbols are correctly identified, move down to the next line.
10. On each lower line, continue asking child to identify each symbol until the child misses 3 on a line.
 - Have child identify the whole line even when 3 or more symbols are missed.



LEA Symbols – Threshold Screening

11. Document visual acuity for the right eye as the last line the child correctly identified 3 or more symbols.
12. Repeat procedure with the right eye covered, starting with the first symbol on the **right** side of each line.
13. When child responds, give verbal praise (“good”, “right”, etc.) even if child is incorrect.
14. Document visual acuity for left eye as the last line the child correctly identified 3 or more symbols.



LEA Symbols – Threshold Screening

NEW AGE-DEPENDENT PASS CRITERIA:

- 3 years old: Correctly identifying 3 or more symbols on the 20/50 line (or any line below) with each eye.
- 4 years old: Correctly identifying 3 or more symbols on the 20/40 line (or any line below) with each eye.
- 5 years and older: Correctly identifying 3 or more symbols on the 20/32 line (or any line below) with each eye.



LEA Symbols – Threshold Screening Fail and Rescreen Within 6 Months or Refer

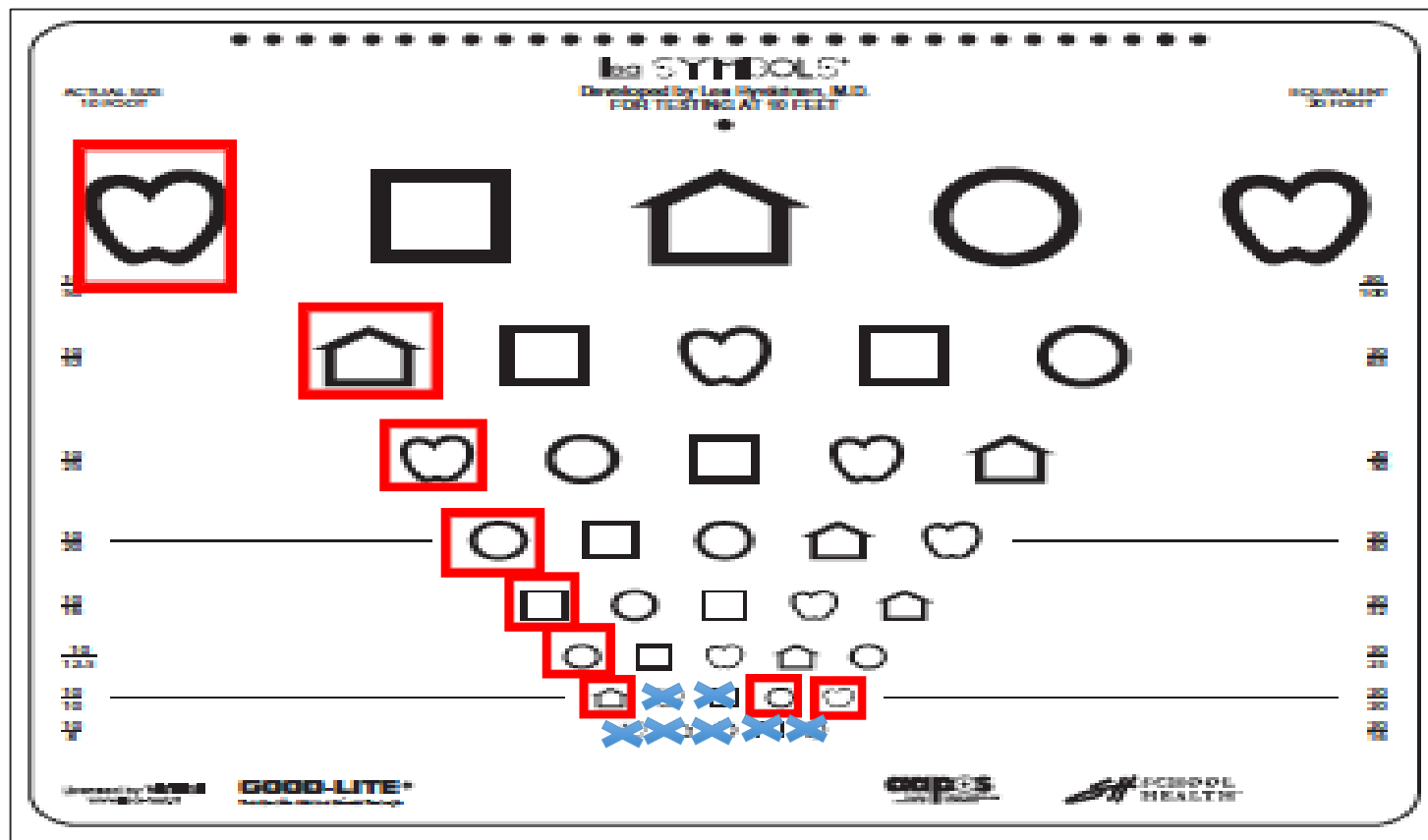
NEW AGE-DEPENDENT FAIL CRITERIA:

- 3 years old: Missing 3 or more symbols on the 20/50 line, or any line above the 20/50 line, with either eye.
- 4 years old: Missing 3 or more symbols on the 20/40 line, or any line above the 20/40 line, with either eye.
- 5 years and older: Missing 3 or more symbols on the 20/32 line, or any line above the 20/32 line, with either eye.
- Two line difference between the eyes, even within the passing range (e.g., 20/20 and 20/32).



Sample 3 Year Old Pass Right Eye

Record Results:
Last line where 3 or more symbols were correctly identified.

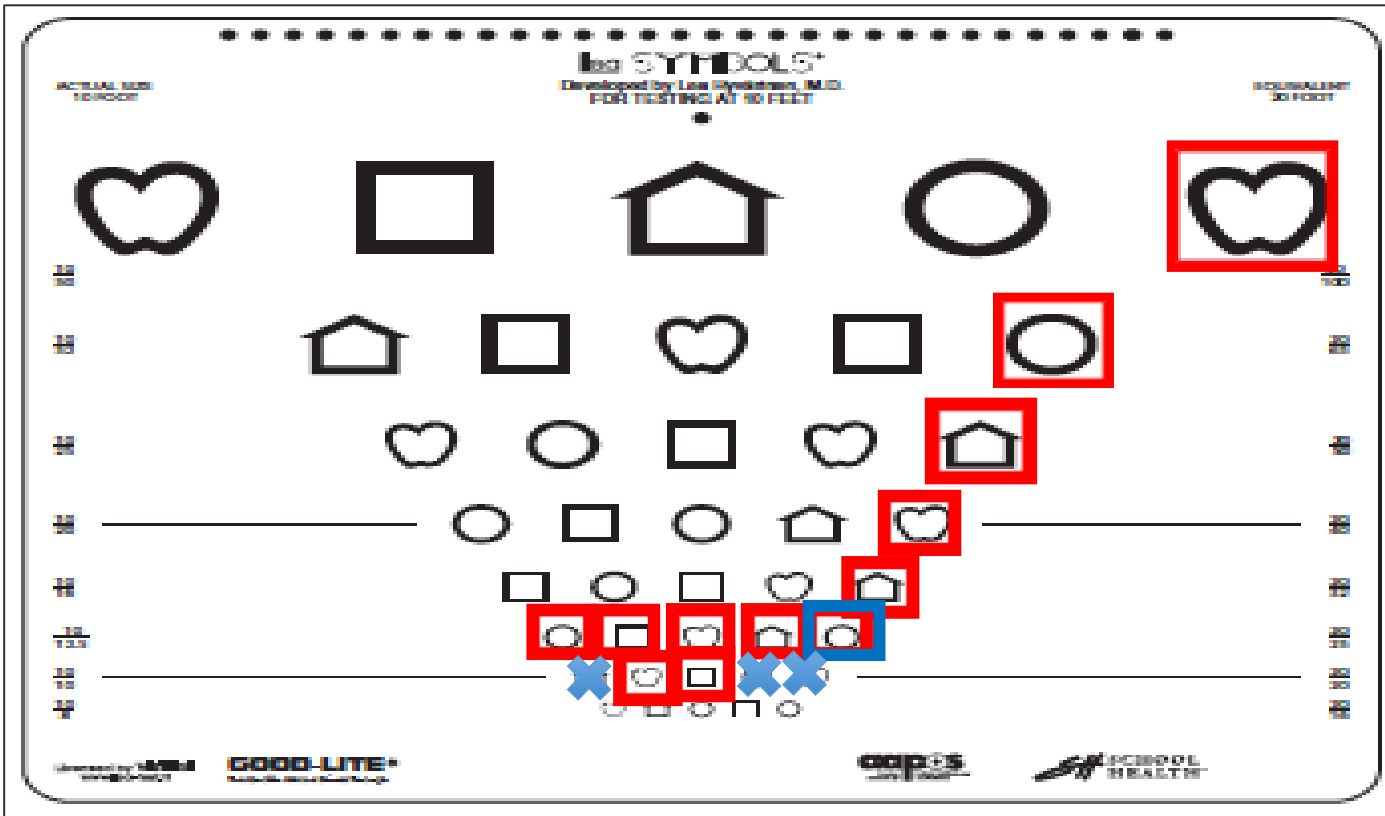


R Eye Pass at 20/20 (10/10)



Sample 3 Year Old Pass Left Eye

Record Results:
Last line where 3 or more symbols were correctly identified.



L Eye Pass at 20/25
(10/12.5)



Documentation

Last Name: DOE	First Name: JANET	MRN# 12345
PLACE OF SCREENING: OFFICE	Age: 3	

Vision Screen Date: 7-20-16

Comments: Pass


	Right Eye	Left Eye
Without Glasses	20 /20	20 /25
With Glasses	/	/

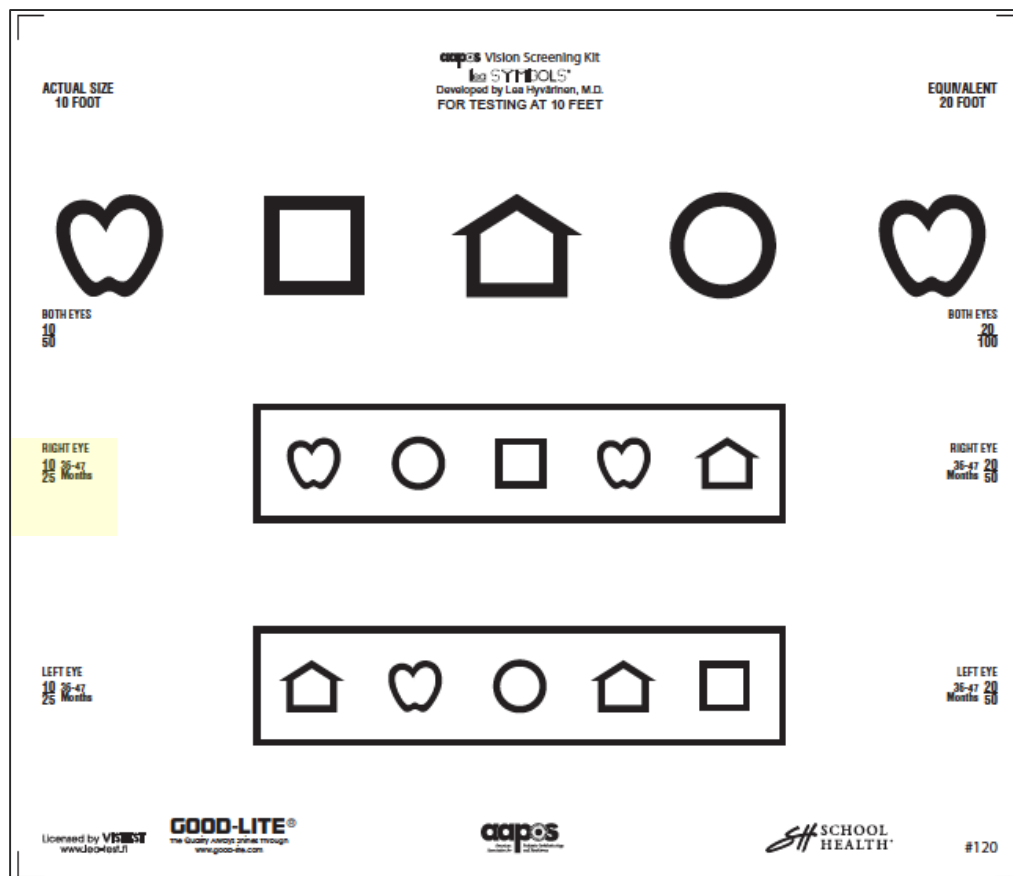
Referred To: _____

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Signature & Title of Person Performing Test



LEA Symbols – Critical Line Screening

1. May use with children age 3 years and older who are unable to recognize letters.
2. Choose chart to match the child's age
 - One chart for 3 years 
 - (36-47 months)
 - One chart for 4 years
 - (48-59 months)
 - One chart for 5 years and older





LEA Symbols – Critical Line Screening

3. Use 10 foot measuring cord to determine distance between the chart and the child's eyes.
4. Child may stand or sit on a chair.
5. Screener may hold or hang the chart at child's eye level.
6. When pointing to symbols, **briefly point to and quickly remove pointer**. Leaving the pointer at the symbol makes the symbol easier to identify, which may lead to missed visual disorders.



LEA Symbols – Critical Line Screening

7. Ask child to identify symbols on the 20/100 line with both eyes uncovered. Make sure child understands the screening procedure.
 - Child may choose the name for each symbol.
 - If child does not know the name of a symbol, screener can give two choices and have child select one (e.g. apple or heart, circle or oval).
 - Children who are shy or nonverbal have the option to use the matching response card to match the symbol the screener is pointing to on the chart.



LEA Symbols – Critical Line Screening

8. Use adhesive patch to cover the left eye.
 - If patches are not available or not tolerated, use occluder glasses.
 - For children 10 years and older only, may use paddle occluder.
9. Use your hand or paper to cover the bottom boxed line on chart.



LEA Symbols – Critical Line Screening

10. Ask child to identify symbols on top boxed line on chart for the right eye.
11. The child must correctly identify 3 or more symbols to pass. Document pass or fail for the right eye.
12. Cover the right eye.
13. Use your hand or paper to cover the top boxed line on the chart.
14. Ask child to identify symbols on the bottom boxed line for the left eye.
15. The child must correctly identify 3 or more symbols to pass. Document pass or fail for the left eye.



LEA Symbols – Critical Line Screening

NEW AGE-DEPENDENT PASS CRITERIA:

- 3 years old: Correctly identifying 3 or more symbols on the 20/50 line with each eye.
- 4 years old: Correctly identifying 3 or more symbols on the 20/40 line with each eye.
- 5 years and older: Correctly identifying 3 or more symbols on the 20/32 line with each eye.



LEA Symbols – Critical Line Screening Fail and Rescreen Within 6 Months or Refer

NEW AGE-DEPENDENT FAIL CRITERIA:

- 3 years old: Missing 3 or more symbols on the 20/50 line with either eye.
- 4 years old: Missing 3 or more symbols on the 20/40 line with either eye.
- 5 years and older: Missing 3 or more symbols on the 20/32 line with either eye.

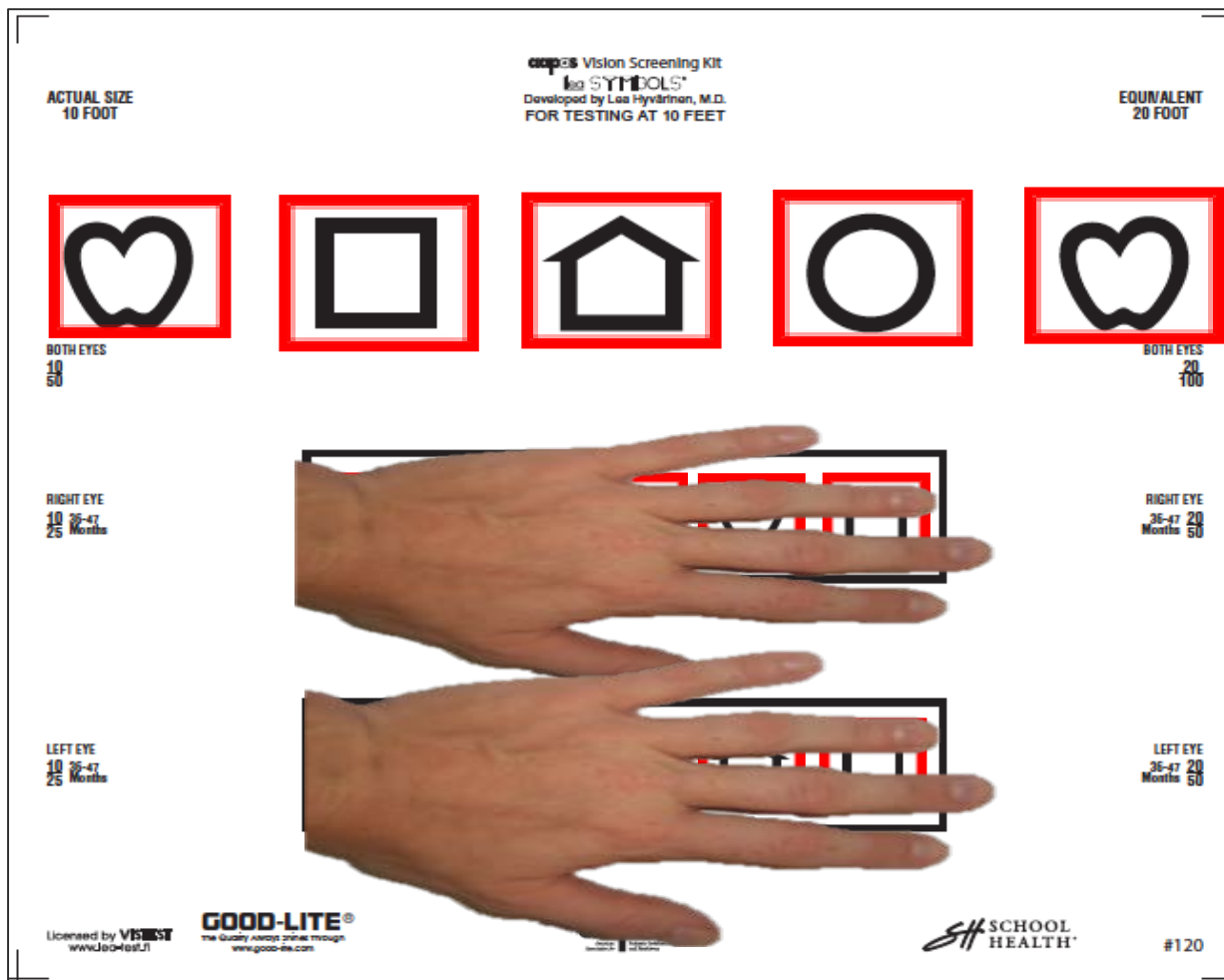


With both eyes open

R Eye 20/50 Pass

Cover L Eye and bottom box

7/14/2017



Cover R Eye and top box

L Eye 20/50 Pass



Documentation

Last Name: DOE	First Name: JANET	MRN# 12345
PLACE OF SCREENING: OFFICE		Age: 3

Vision Screen Date: 7-20-16 Comments: Pass

	Right Eye	Left Eye
Without Glasses	20 /50	20 /50
With Glasses	/	/

Referred To: _____

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Signature & Title of Person Performing Test



Sloan Letters – Threshold Screening

1. May use with:
 - children 5 years and older who know their letters well
 - adolescents
 - adults
2. Use 10 foot measuring cord to determine distance between the chart and the child's eyes.
3. Child may stand or sit on a chair.
4. Screener may hold or hang the chart at child's eye level.



Sloan Letters – Threshold Screening

5. Use adhesive patch to cover the left eye.
 - If patches are not available or not tolerated, use occluder glasses.
 - For children 10 years and older only, may use paddle occluder.

6. When pointing to letters, **briefly point to and quickly remove pointer**. Leaving the pointer at the letter makes the letter easier to identify, which may lead to missed visual disorders.



Sloan Letters – Threshold Screening

7. Beginning at the top line, ask the child to identify the first letter on the **left** side of each line and move down the chart until the child misses a letter.
8. When a letter is missed, return to the line above and ask the child to identify ALL letters on that line. If 3 or more letters are correctly identified, move down to the next line.
9. On each lower line, continue asking child to identify each letter until the child misses 3 on a line.
 - Have child identify the whole line even when 3 or more letters are missed.



Sloan Letters – Threshold Screening

10. Document visual acuity for the right eye as the last line the child correctly identified 3 or more letters.
11. Repeat procedure with the right eye covered, starting with the first letter on the **right** side of each line.
12. When child responds, give verbal praise (“good”, “right”, etc.) even if child is incorrect.
13. Document visual acuity for the left eye as the last line the child correctly identified 3 or more letters.



Sloan Letters – Threshold Screening

If Sloan letters chart has lines that split into 2 charts/column:

- The left column is for screening the right eye.
 - When child is reading a full line of the left column, child reads left to right.
- The right column is for screening the left eye.
 - When child is reading a full line of the right column, child reads right to left.



Sloan Letters – Threshold Screening

NEW AGE-DEPENDENT PASS/FAIL CRITERIA:

- Pass: Correctly identify 3 or more letters on the 20/32 line (or any line below) with each eye for children 5 years and older.
- Fail and rescreen within 6 months or refer when:
 - Miss 3 or more letters on the 20/32 line, or any line above the 20/32 line, with either eye, for children 5 years and older.
 - Two-line difference between the eyes, even within the passing range, e.g. 20/16 and 20/25.



Sample 5 Year Old Fail

Record Results:
Last line where 3 or more symbols were correctly identified.



R Eye
20/40
(10/20)

7/14/2017



L Eye
20/40
(10/20)



Documentation

Last Name: DOE

First Name: JANET

MRN# 12345

PLACE OF SCREENING: OFFICE

Age: 5

Vision Screen Date: 7-20-16

Comments: Fail

	Right Eye	Left Eye
Without Glasses	20 /40	20 /40
With Glasses	/	/

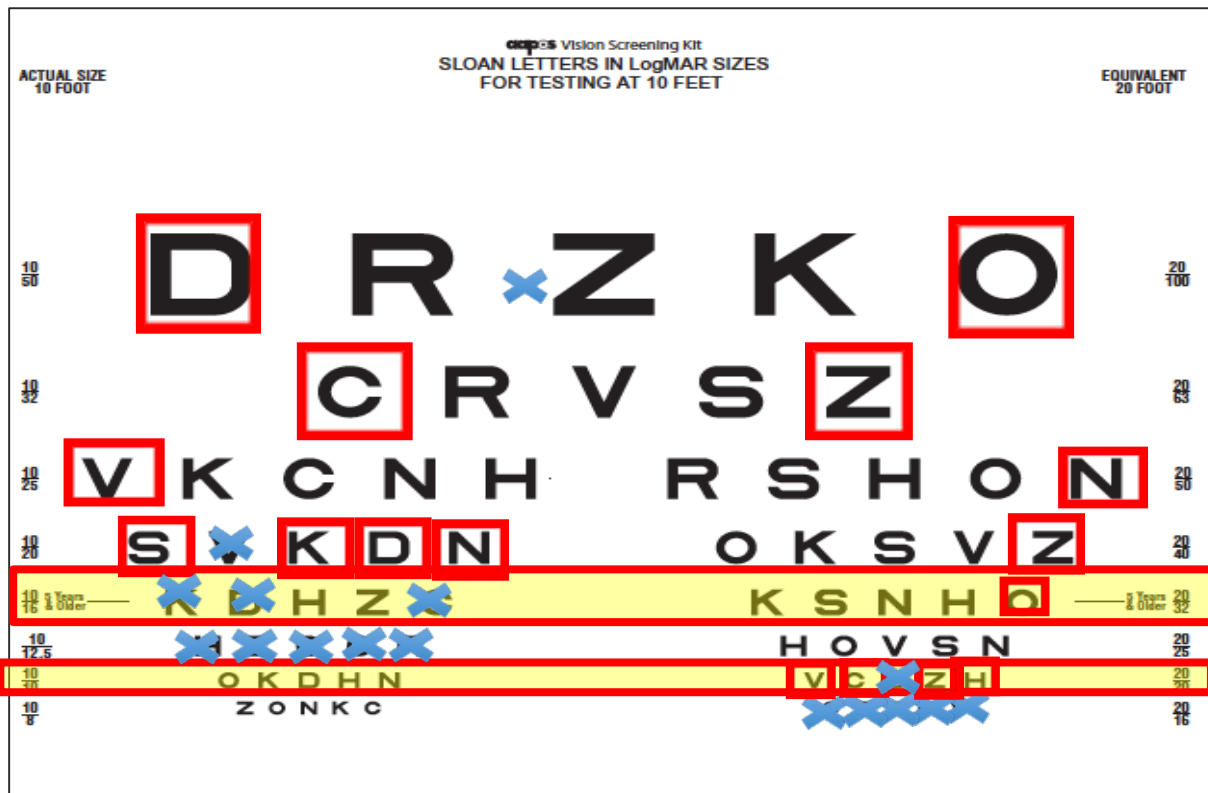
Referred To: Dr. Eye

Signature & Title of Person Performing Test



Sample 5 Year Old Fail (2 Line Difference)

Record Results:
Last line where 3 or more symbols were correctly identified.



Fail due to 2 line difference

R Eye
Pass at
20/32
(10/16)

L Eye Pass at 20/20 (10/10)



Documentation

Last Name: DOE

First Name: JANET

MRN# 12345

PLACE OF SCREENING: OFFICE

Age: 5

Vision Screen Date: 7-20-16

Comments: Fail due to 2 line difference



	Right Eye	Left Eye
Without Glasses	20 /32	20 /20
With Glasses	/	/

Referred To: Dr. Eye

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Signature & Title of Person Performing Test



Sloan Letters – Critical Line Screening

1. May use with:
 - children 5 years and older who know their letters well
 - adolescents
 - adults
2. Use 10 foot measuring cord to determine distance between the chart and the child's eyes.
3. Child may sit on a chair or stand.
4. Screener may hold or hang the chart at child's eye level.



Sloan Letters – Critical Line Screening

5. Use adhesive patch to cover the left eye.
 - If patches are not available or not tolerated, use occluder glasses.
 - For children 10 years and older only, may use paddle occluder.
6. Use your hand or paper to cover the bottom boxed line on chart.
7. Ask child to identify letters on top boxed line on chart for the right eye.
8. The child must correctly identify 3 or more letters to pass. Document pass or fail for the right eye.



Sloan Letters – Critical Line Screening

9. Cover the right eye.
10. Use your hand or paper to cover the top boxed line on the chart.
11. Ask child to identify letters on the bottom boxed line for the left eye.
12. The child must correctly identify 3 or more letters to pass. Document pass or fail for the left eye.



Sloan Letters – Critical Line Screening

NEW AGE-DEPENDENT PASS/FAIL CRITERIA:

- Pass: Correctly identify 3 or more letters with each eye.
- Fail and rescreen within 6 months or refer when:
 - Miss 3 or more letters on the 20/32 line, with either eye.



R
Eye
20/32
Fail

Cover
L Eye
and
bottom box

GOOD-LITE Vision Screening Kit
SLOAN LETTERS IN LogMAR SIZES
FOR TESTING AT 10 FEET

ACTUAL SIZE
10 FOOT

EQUIVALENT
20 FOOT

BOTH EYES
10
50

R V Z O S

BOTH EYES
20
100

RIGHT EYE
10
50

RIGHT EYE
20
100

LEFT EYE
10
50

LEFT EYE
20
100

GOOD-LITE®
The Quality Always Shines Through
www.good-lite.com

GOOD-LITE Vision Screening Kit

SCHOOL HEALTH #120

Cover R
Eye and
top box

L Eye
20/32
Fail



Documentation

Last Name: DOE		First Name: JANET		MRN# 12345
PLACE OF SCREENING: OFFICE			Age: 5	

Vision Screen Date: 7-20-16 Comments: Fail

	Right Eye	Left Eye
Without Glasses	20 /32	20 /32
With Glasses	/	/

Referred To: Dr. Eye

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Signature & Title of Person Performing Test