

Distance Vision Screening: Threshold Method

70%-80 % of what we learn is through vision. We need to see well to learn to read, write, and see a school board. If the child has vision impairment corrective lenses (glasses) can help. Even if glasses are not available, you are armed with knowledge that can benefit the child. Making sure the child is seated closer to the board at the front of the class can improve learning possibilities.

SYMPTOMS OF VISION IMPAIRMENT

- Loosing place and difficulty reading
- Headaches
- Squinting
- Frequent blinking
- Red, tired, or watery eyes

THINGS YOU WILL NEED

- Good lighting
- Eye chart
- Ruler/tape measure
- Piece of stiff cardboard Setting up for vision screening

SET UP

- Obtain or create an Eye Chart
- Hang the eye chart at the eye level of the average child
- Measure 20 feet (or 6.1 meters) and mark the spot on the ground

STEP BY STEP INSTRUCTIONS

- Have child place their feet on the line
- Point *below* each image on the chart with your finger
- Have child cover left eye- test and write down the results
- Have child cover right eye- test and write down the results
- Have child uncover both eyes-test and write down the results



Overview on how to perform the Threshold vision screening method. Have the child read *one* letter of each line, starting at the top of the chart moving downward. When the child makes a mistake, go back to the line above and have them read each letter or symbol on that line, and then have them complete the lines below the same way. Repeat the same procedure with the opposite eye, and then with both eyes. If the child makes more than 2 errors, then the line above is the child's vision score. 20/20 is considered normal.

INTERPRETATION

If the child answers can see 3 out of 5 items, then that eye passes on that line. For instance, if the child reads the bottom line, (the 20/20 line)...then the child has 20/20 vision in that eye. A score of let's say...20/50 vision, means that what the child sees clearly at 20 feet away, what someone with normal vision can see at 50 feet away.

Generally, scores of **20/20**, **20/25** and **20/30** are considered, "passing." Any score higher than that should be referred for glasses. If a child is unable to obtain glasses attempt to make the necessary accommodations for optimum learning, i.e. move the child to the front of the class, large print books, increased patience with reading, etc.

Skin Infections in the South Pacific

Words of caution

If you are using a pre-made chart, check for the distance indicated on the chart. Some eye charts are smaller and therefore would need to be placed hang at a closer distance.

Use a stiff piece of paper to cover eyes during the test and not the child's hand. They may press on the eye, and distort their vision and provide incorrect results. They can also peek through their fingers if they use their hand.

Ensure the child knows the letters which are on the chart (and/or the symbols), and that they understand what is expected of them during the test (i.e. When you state, "read the letters," but the child believes the group of letters is a word which they have never seen or can't pronounce, they might say, "I don't know").

With very young children (3-5 years old), two people to perform test are required. One to sit with the child and hold the eye cover, and one to stand at the chart.

Try to decrease stress, if the child says, "I can't," you can respond, "That's ok. Just try your best."

If the child is squinting during the test, say, "Keep your eyes open real big."

Just because a child can't tell you what you are pointing at doesn't mean they have vision problems, they may just be feeling uncooperative and being children. Try again on another day. And on the flip side, just because a child is uncooperative, doesn't mean they can see and are just being children, it may mean that they are unable to see and are frustrated and/or embarrassed.

Directions on how to create your own Snellen Eye Chart

Distance (feet)	70	60	50	40	30	20	15	10	7	4
Letter height (mm)	31	27	22	18	13	9	7	4	3	2

See examples on the next two pages.

Alexander, K. E., Brinjath, B., Biezen, R., Hampton, K., & Mazza, D. (2017). Preventative healthcare for young children: A systematic review of interventions in primary care. *Department of General practice, School of Primary Health Care, Monash University, 99*, 236-250. <https://doi.org/10.1016/j.yjmed.2017.02.024>

Grossman, D. C., Curry, S. J., Owens, D. K., Barry, M. J., Davidson, K. W., Doubeni, C. A., ... Mangione, C. M. (2017). Vision screening in children aged 6 months to 5 years: US preventative services task force recommendation statement. *Journal of the American Medical Association, 318*, 836-844. <https://doi.org/10.1001/jama.2017.11260>

T Z

20
100

P T O C

20
60

Z L P E D

20
50

E T O D C F

20
40

D P C Z L F T

20
30

C F D T E O P L

20
25

L D C Z O T E P

20
20

P F C D T Z L E

20
16

$\frac{20}{200}$



$\frac{20}{100}$



$\frac{20}{70}$



$\frac{20}{50}$



$\frac{20}{40}$



$\frac{20}{30}$



$\frac{20}{20}$



$\frac{20}{15}$

