



**School Vision Screening
Reference Guide for Volunteers**

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Background



- The provincial government has rolled out a new vision screening program for students in senior kindergarten (SK) which began in the 2018/2019 school year
- This requires all boards of health in Ontario to provide vision screening services in accordance with the Child Visual Health and Vision Screening Protocol



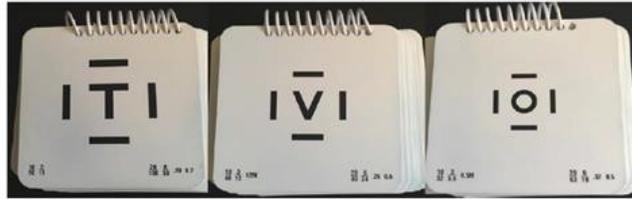
- Vision screening is a short sequence of tests (approximately 10-15 minutes per child) that can detect and identify some risk factors for the following vision disorders:
 - Amblyopia (“lazy eye”)
 - Stereopsis and/or Strabismus (“eye turn”)
 - Refractive Vision Disorder (including nearsightedness and farsightedness)
- Vision screening cannot diagnose vision disorders, nor is it a replacement for a comprehensive eye exam



- The following 3 vision screening tests will be used to conduct the vision screening:
 - 1) HOTV visual acuity chart with crowding bars (flash cards)
 - 2) Randot Preschool Stereotest (3-D book)
 - 3) Autorefractor (Device)
- The vision screening will occur on the same day as the SK dental screening and/or fluoride varnish treatment completed by Haldimand Norfolk Health Unit dental staff

Vision Screening Tests

HOTV Test (flash cards)



Preparation of Environment before Screening

- 1) Measure and mark with tape a 10-foot distance between the spiral-bound test cards and the child.
- 2) Ensure good lighting.

Preparation of Student before Screening

- 1) Begin with the flash cards close to the child. Ask the child to name or match the letters. Show the child the flash cards, but do not call the letters by name.
- 2) Ask the child to match each flash card letter with one on the response panel (lap card).
- 3) When the letters can be named/matched without difficulty, the screening may begin.
- 4) Move back to 10 feet and begin the test (remember to have 1 eye completely covered).

 Ensure that the child can accurately identify the letters before starting the test.

Test Procedure

- 1) If the child wears prescription glasses, conduct the screening with the child wearing their glasses. Cover one of the lenses with an eye patch or put occluder glasses over the child's regular glasses.
- 2) Position the child 10 feet from the spiral-bound test cards.
- 3) Give the child the response card to hold on their lap.
- 4) Test each eye separately, starting with the right eye (i.e., ensure the left eye is completely covered with either an eye patch or occluder glasses).
- 5) Hold up the spiral-bound cards and turn to the first card. Ask the child to either name the letter or point to the matching letter on the response card to indicate their choice. If the child is correct, test a second letter and have the child name/match it.
- 6) The last size where three out of four test letters are correctly identified represents the child's visual acuity.
- 7) Repeat procedure for the left eye (i.e., ensure the right eye is completely covered).
- 8) Before screening another student, wipe the lap card and individual flash cards with the sanitation wipes provided. If the occluder glasses were used, wipe the arms of the glasses as well. Do not use the same eye patch for different students.

 There are 4 letters per level. The child must get 3 out of 4 correct to move on to the next level with smaller letters. Note 1 of the cards may be repeated to give the child an extra attempt.

Note: there is no need to continue screening if the child reaches or passes 20/32. If the child reaches and passes 20/32 for **both** the right and left eye, the screening result for this screening test is "PASS."

Determining the Screening Result



HOTV:	OD 20/ OS 20/	Screened by:
		Notes:
PASS	UNABLE/REFUSE	REFER

 Select one of the 3 options.

Use the following thresholds for determining the screening result associated with this screening test:

- If the child reaches and passes 20/32 or better for O.D. and O.S., the screening result for this screening test is "PASS".
- If O.D. and/or O.S. are worse than 20/32, the screening result for this screening test is "REFER".
- If the child is unable or unwilling to do the test, then the result for this screening test is "UNABLE/REFUSE".


O.D. = Right Eye
O.S. = Left Eye

Randot Test (3-D book)



Preparation before Screening

- 1) Ensure good lighting.
- 2) Ensure the child can identify the silhouettes/shapes on the left-hand page (the 2-D black and white images). These are the possible answers for matching.
- 3) Make a game of the screening. Explain to the child that you would like the child to look through a pair of “magic” glasses that let you see things hiding in the snow (right-hand page).
- 4) Have the child put on a pair of stereoglasses (3-D glasses).

Test Procedure

- 1) If the child wears prescription glasses, conduct the screening test with the child wearing their glasses during testing with the larger 3-D glasses worn over top.
- 2) Hold the book directly in front of you (or lay it on the table), about 40cm (16 inches) from the child’s eyes.
- 3) Start with the largest disparity (800 arcsec). In each test booklet, the left-hand page shows two-dimensional black and white silhouettes/shapes (possible answers for matching) and the right-hand page contains the test images. In each set of four random-dot patterns, one contains no test shape, while the remaining three contain test shapes. While wearing 3-D glasses, ask the child to point to each square and say what he/she sees.
- 4) After the child passes a level, proceed to the next harder level until you reach 60 arcsec.
- 5) Before screening another student, ensure you wipe the arms of the 3-D glasses with the sanitation wipes provided. Do not wipe the lens of the 3-D glasses.



The child must correctly identify at least 2 of the 3 test shapes at each disparity level in order to move on to the next level.

Tips

- Allow the child to adjust for a moment, waiting for objects to “pop out of the snow” before they indicate what they see. If the child has trouble, ask the child to look for the items on the left hand side, but be careful that the child does not just choose the same sequence.
- If the child does not answer, you can ask the child to point to the matching shapes on the left and the right. For example, “do you see a shape here (point to a square on the right)? Does it

look like one of these shapes over here (on the left)? Which shape does it look like? Can you match them?"

- If the child requires more prompting, you may point to a symbol on the left (e.g., heart) and have the child point to the same symbol on the right. For example, "I see a heart (point to the heart on the left), where is the heart hiding over here?" (point to right page).

Determining the Screening Result

200 arcsec

Randot: arcsec Screened by:
Notes:

PASS UNABLE/REFUSE REFER

👁️👁️ Each level in the book is labelled.

👁️👁️ Select one of the 3 options.

Use the following thresholds for determining the screening result associated with this screening test:

- If the child correctly identifies at least two of the three test shapes at 60 arcsec, the screening result for this test is "PASS".
- If the child is unable to correctly identify at least two of the three test shapes at 60 arcsec, the screening result for this test is "REFER".
- If the child is unable or unwilling to do the test, then the result for this screening test is "UNABLE/REFUSE". Note: if the child is unable to identify two shapes at 800 arcsec, then the result of this screening test is "UNABLE/REFUSE".

Autorefractor Test (Device)



Preparation before Screening

- 1) Ensure the room/area is dimly lit.
- 2) Place 2 chairs approximately 3 feet apart from each other.
- 3) Tell the child that “we will be taking a picture of your eyes” and to look at the “nose of the happy-face” with big, wide eyes.
- 4) If the child wears prescription glasses, **do not** test the child with the Autorefractor.

Test Procedure

- 1) Turn the device **ON** by clicking the orange button near the bottom, right-hand side of the device. It will take approximately 30-45 seconds for the device to turn **ON**.
- 2) For “Patient’s age” select 5-6 years (i.e., click in the middle between 5 and 6 on the arrow).
- 3) Once the “Patient’s age” is listed as 5-6 years, click on “**GO**” or click on the orange button on the right-hand side of the device.
- 4) Place the device on a 45° angle, with the happy face lining up with the child’s eyes.
- 5) Adjust as necessary until a picture is taken and either a **PASS** or **REFER** message appears. You do not have to click on any buttons for the picture to be taken.
- 6) Once a **PASS** or **REFER** message appears, select the print icon located on the bottom left-hand side.
- 7) Point the device close to the printer (the label will not print if the device is not in close proximity to, and pointing directly at, the printer).
- 8) Select the green check-mark to begin printing the label (the printer will begin to flash blue). Do not move the device away from the printer until the label is fully finished printing.
- 9) Place the printed label on the child’s Screening Assessment Form (SAF) and check PASS or REFER based on the result indicated on the Autorefractor. Note, if the child is wearing glasses, check N/A.
- 10) To begin screening another student, click on the orange button on the right-hand side of the device and begin the process again.

 If a message other than PASS or REFER appears, click on the orange button on the right-hand side of the device and take the picture again. Ensure the child has his/her eyes wide open and is looking at the nose of the happy face on the camera.

Note: if the screen turns black, simply click on the screen to ‘wake-up’ the device. If you click on the **ON** button, the device will fully shut off and you will need to turn it back on again to start taking pictures.

Determining the Screening Result

Autorefractor:

Child is wearing glasses? Yes or No (If Yes, autorefractor screening is N/A)

	S	E	Sphere	Cylinder
OD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Circle reason	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Screened by:

Notes:

Pass Unable/Refuse Refer N/A

Place the printed label from the device over this section.

 Select one of the 3 options (the label will state if the child Passed or was Referred).

 Select only if the child is wearing glasses.

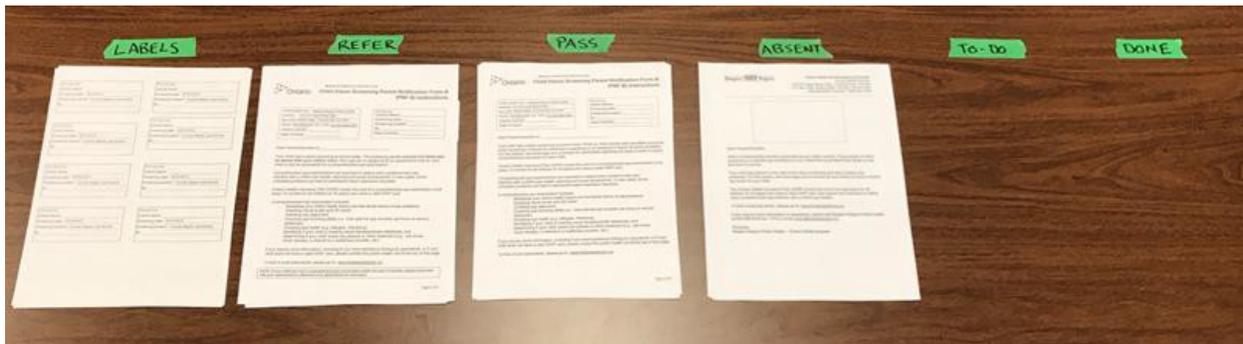
Managing Paperwork

Setting up Paper Station

1) Using tape, mark these **6** headings on the table

- Labels (for the PNF forms)
- Refer (PNF-A)
- Pass (PNF-B)
- Absent (letter)
- To-do (blank)
- Done (blank)

👁️👁️ "To-Do" and
"Done" will be
empty at first.



- 2) From the purple plastic folder, remove the paperwork and organize each stack with its corresponding heading.
- 3) Remove paperclips from each stack.
- Class lists and name tags will be clipped to the Screening Assessment Form (SAF) piles according to their classrooms.
 - There will be some blank SAFs, leave them in the folder (you will need these for any new students that were not on the class list).

Filling out the Forms



Once a student completes all 3 tests, place their SAF and envelope in the "To-Do" pile. Their overall result will either be a REFER or PASS.

OVERALL Result: REFER

If a child was referred on any test, their overall screening result is REFER.

- 1) Check REFER at the bottom of the Screening Assessment Form (SAF) and initial the SAF.
- 2) Separate the SAF from the student envelope and place the SAF in the "DONE" pile.
- 3) Take student's label from label sheet and apply to **PNF-A** form.
- 4) Write your initials on the "By" line on the label.
- 5) Write student's first name on the "Dear Parent" line on the PNF-A form.
- 6) Fold, stuff and seal envelope with glue stick.



Remember to review SAF for errors before determining their overall result and that the SAFs are NOT sent home

OVERALL Result: PASS

If a child passed ALL 3 tests, their overall screening result is PASS.

- 1) Check PASS at the bottom of the Screening Assessment Form (SAF) and initial the SAF.
- 2) Separate the SAF from the student envelope and place the SAF in the "DONE" pile.
- 3) Take student's label from label sheet and apply to **PNF-B** form.
- 4) Write your initials on the "By" line on the label.
- 5) Write student's first name on the "Dear Parent" line on the PNF-B form.
- 6) Fold, stuff and seal envelope with glue stick.



If a student is **absent** on the day of vision screening, or is labelled as **Do Not Screen (DNS)**, follow these steps:

Absent

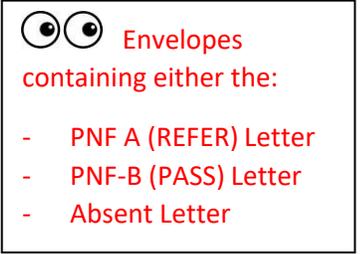
- 1) Write "ABSENT" on the student's Screening Assessment Form (SAF).
- 2) Take student's label from label sheet and apply to Absent Letter.
- 3) Fold, stuff and seal envelope with glue stick.

Do Not Screen (DNS)

- 1) Write DNS at the top of Screening Assessment Form (SAF).
- 2) Separate SAF from envelope.
- 3) Place SAF in the "DONE" pile.

Distributing the Envelopes

- 1) Bundle envelopes by classroom with elastic band.
- 2) Bring bundle envelopes to classroom teachers for distribution (give instructions).



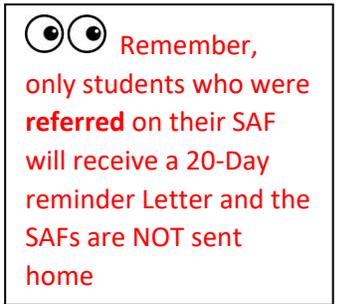
 Envelopes containing either the:

- PNF A (REFER) Letter
- PNF-B (PASS) Letter
- Absent Letter

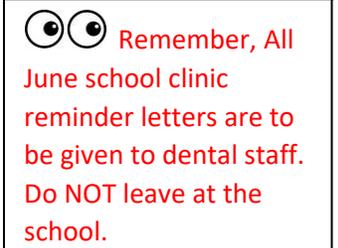
Note: any extra or remaining forms/labels are to be returned to purple folder

20-Day Reminder Letters

- 1) Sort the Screening Assessment Forms (SAFs) by classroom and alphabetically.
- 2) Take reminder letters and envelopes from large brown envelope.
- 3) Flip through each SAF and identify each refer (students with an overall result of REFER).
- 4) For each referred student, find the pre-printed 20-Day Reminder Letter.
- 5) Fold Reminder Letter, stuff and seal into a blank envelope. Write student's name on front of envelope.
- 6) Sort envelopes into batches according to classroom and secure with elastic.
- 7) Place all batches into large brown envelope.
- 8) Leave brown envelope with school secretary and instruct to give to teachers on the indicated date.
- 9) Place unused letters into purple folder and return to dental staff.



 Remember, only students who were **referred** on their SAF will receive a 20-Day reminder Letter and the SAFs are NOT sent home



 Remember, All June school clinic reminder letters are to be given to dental staff. Do NOT leave at the school.

Finish up

Once the above processes are complete:

- 1) Sort the SAFs alphabetically and then by classroom using paperclips.
- 2) Attach corresponding class list to top of each batch.
- 3) Give SAFs to Public Health dental staff.

Frequently Asked Questions

Am I diagnosing vision disorders through this vision screening?

No. A comprehensive eye exam with an optometrist is the only way to tell if a child's eye are developing properly. Vision screening helps detect risk factors for possible vision disorders, such as lazy eye, eye turn, nearsightedness and farsightedness, but cannot be used to diagnose a vision or eye health problem.

Vision screening is not a substitute for a comprehensive eye exam.

What do I do if there is a new student at the school that is not on my class list?

If there is a new student at the school that is not on the class list, ask the child's teacher or school secretary when the Pre-Vision Screening Parent Notification Letters were sent out and if the child was at the school when this happened. If they are unsure, ask a Public Health dental staff member to check this date on PROFILE.

If the student did not take home a Pre-Vision Screening Parent Notification Letter, **do not screen the student**. If the student took home this letter, and did not opt-out, you can screen the student.

What does DNS mean?

DNS stands for Do Not Screen. This means that a parent/guardian opted their child(ren) out of the vision screening. On the morning of the vision screening, talk to a member of the Public Health dental staff team to see if any students have been opted-out of vision screening. Do not screen any of these students and follow the paper-work process outlined on page 11.

If a child is wearing glasses, do I still complete all 3 vision screening tests?

If a child is wearing glasses, **only** conduct the HOTV and Randot tests. For the Autorefractor test, indicate on the student's Screening Assessment Form (SAF) that the child is wearing glasses and check N/A as the result.

Note: if a child that is wearing glasses passes both the Randot and HOTV tests, their overall screening result is PASS. If they are referred on one or both tests, their overall screening result is REFER.

Does a child keep their glasses on while I complete the HOTV and Randot test?

Yes. For HOTV, cover one of the lenses with an eye patch or put the occluder glasses over the child's regular glasses and conduct the test as you normally would. For Randot, place the 3-D glasses over the child's regular glasses and conduct the test as you normally would.

 **A teacher asked me if I can screen a student that they suspect has vision problems, but the student is not in SK. Am I allowed to do this?**

No. The vision screening is intended for SK (ELKP Year 2 students) only. Parents/guardians must have received the Pre-Vision Screening Parent Notification Letter before their child(ren) can be screened and this letter is only sent home with SK students. You can encourage the teacher to communicate their concerns directly with the parent.

 **When should I make an automatic referral?**

An automatic referral can be made if the child has any of the following observable eye conditions:

- The eye turns in or out;
- The child has crusty or red eyelids;
- The child has drooping eyelids;
- The child has different size pupils or eyes;
- The eyelids are swollen; and/or
- The child has conjunctivitis (pink eye).

 **A child was absent on the day of vision screening. What do I do?**

If a child's absent on the day of vision screening, **only** send home the Absent Letter. **Do not** send home the PNF- A (REFER) or PNF-B (PASS) letter. In addition, **do not** create a 20-day Reminder Letter for the child.

Test	When to use sanitation wipes
HOTV	
Spiral Bound Cards	Because the child is not touching these cards, you do not need to wipe these with the sanitation wipes
Lap Card	After each child
Individual Flash Cards	After each child
Occluder Glasses	The arms of the glasses should be wiped after each child
Randot	
Book	After each child
3-D Glasses	The arms of the glasses should be wiped after each child *IMPORTANT* Do NOT wipe the lens of the glasses with the sanitation wipes as it will damage the lens
Autorefractor	
Device	Because the child is not touching this device, you do not need to wipe this with the sanitation wipes *IMPORTANT* Do NOT wipe the camera lens with the sanitation wipes as it will damage the lens If the lens of the camera get dirty, use the PlusOptix cloth from the black bag to clean it