Screening

Growth Screening

A. General Guidelines

1. A school employee should refer a student to the school RN for a growth and development screening when:
   a) The student seems unusually large or small for his/her age.
   b) He/she has an extreme change in growth pattern.
   c) There seems to be an unusually great difference between the height and weight.
   d) The student fails to grow heavier and taller.
   e) There is an unusual increase in the student's height or head size.

2. The height and weight should be measured by the school RN during the assessment of the student's health. A growth chart should be maintained. School RNs should refer to American Academy of Pediatrics Height and Weight Growth Chart and guidelines.

B. Growth Screening Purpose

1. To identify the student who is not growing and developing normally.
2. To stimulate interest in self-responsibility for growth and development.
3. To show relationship between good health practices and growth.
4. To create an awareness among school personnel and parents of the relationship of good nutrition to growth.

Hearing Screening

A. General Guidelines

1. A school employee shall refer a student to the school RN for a hearing screening when the following, signs or symptoms of hearing problems are observed.
   a) Delayed speech development
   b) Sudden hearing loss
   c) Turning the head to hear with one ear
   d) The need to face speaker as in lip reading
   e) Painful or draining ear
   f) Low tolerance for loud sounds
   g) Low tolerance for background noises
   h) Increase volume on the television

2. A student should be referred to the school RN for health assessment, when the health history includes:
   a) Prenatal or perinatal exposure to drugs, or to infectious diseases
   b) Hereditary disorders
   c) Following infectious diseases such as meningitis repeated ear, nose or throat infections
   d) Injury by extreme noise
   e) Other conditions

B. Specific Guidelines for Hearing Screening

In compliance with Louisiana Statutes § 17:2112, and 17:391.11, the school RN will conduct the following screening procedures:

1. During the first semester of the school year or within thirty days after the admission of any

students entering the school late in the session, the school RN shall test the hearing of each and all pupils under their charge, except those pupils whose parent or tutor objects to such examination, as provided for in R.S. 17:156. Such testing shall be completed in accordance with the schedule established by the American Academy of Pediatrics. Students may also be tested upon referral or requests of teachers and/or parents. In addition, children should be screened upon evaluation and entrance for a special education program.

2. Screening can only be performed by the certified school RN, speech therapist, audiologist or designated persons under their supervision if volunteers or other school personnel are used.
3. If the student fails any part of the hearing screening, he/she must be screened a second time in two to six weeks after the initial screening.
4. If the student fails the screening a second time, a referral letter is sent to the parents for further evaluation by an audiologist.
5. If impacted ear wax, foreign body in the ear canal, redness to the ear drum/canal, protruding eardrum, or any drainage is noted from the ear, the student should be referred to their Primary Care Physician (PCP) for treatment and follow up.
6. The school RN shall keep a record of all screenings, shall be required to follow up on the deficiencies within sixty days, and shall notify in writing the parent or tutor of every pupil found to have any defect of hearing.
7. Calibration check of audiometer by a qualified facility must be done annually.

C. Purpose

1. To promote a high level of hearing acuity for all students.
2. To minimize the number of students with hearing loss.
3. To provide for individual educational needs of students with permanent hearing impairment.

D. *Personnel*

1. School RN
2. Speech Therapists
3. Additional support personnel designated to assist in the hearing screening process.

E. Equipment

1. Audiometer and earphones
2. Earphone covers
3. Table; 2 chairs; working outlet
4. A quiet location conducive to obtaining reliable results.

PURE TONE TEST PROCEDURE

Essential Steps	Key Points and Precautions
1. Gather equipment: Audiometer and headphones.	Select a room in the quietest part of the building.
2. Determine that the audiometer is in working order prior to beginning screening.	Check audiometer at 50db at all frequencies that are being used for testing.
3. Give careful directions and practice with the student before beginning the screening.	Be sure the student understands that he/she should raise his/her hand as she/he hears the tone and lowers their hand as soon as the tone stops.
4. Place the earphones on each ear with the red earphone on the right ear and the blue earphone on the left.	Earphones should fit snugly and directly over the ears making sure that nothing is interfering with the passage of sound (i.e. hair, earrings, eyeglasses, etc.).
5. Start screening with the right ear.	If student reports greater hearing problems in right ear, begin with left ear.
6. Present 1000 Hz at 40db to determine threshold. If there is no response, re-instruct. If there is a response, proceed as described below.	If the student continues to not respond, rescreen at a later time. When rescreening, if there is still no response to threshold check, he/she is considered to have failed the screening.
7. Move dial to 20db (25db if 18 years and older).	Avoid exaggerated, noisy depression of the tone presentation switch; the student may see or hear this and respond to the sound of the movement rather than the tone.
8. Present tone three times at this level noting student's response or lack of such. Two responses out of three is considered a "pass".	Avoid establishing a rhythm of tone presentation. Avoid looking down at the audiometer and then up at the student every time a tone is presented.
9. Change frequency selector to 2000 Hz and present the tone at 20db (25db). Follow the procedure used for 100Hz and record results.	Do not ask the student during the screening, "Did you hear it?"
10. Change frequency selector to 4000 Hz and again present the tone at 20db (25db) as described above. Record the results.	Do not allow student to chew gum during the screening.
11. Switch audiometer's output to left (right) ear and then repeat steps 7 through 11.	Re-refer within two weeks (for possible congestion), possible third re-check in two weeks for continued signs if congestion then refer
12. Refer for further hearing examination as needed.	student is not responding at the recommended screening level of 20-25 db at any frequency.

Vision Screening

A. General Guidelines

In compliance with Louisiana Statutes §17:2112, 17:391.1, the school RN will conduct the following vision screening procedures:

1. During the first semester of the school year, the school RN shall test the sight, including color screening for all first grade students, and hearing of each and all pupils under their charge, except those pupils whose parent or tutor objects to such examination, as provided for in R.S. 1 7:156. Such testing shall be completed in accordance with the schedule established by the American Academy of Pediatrics. The State Board of Elementary and Secondary Education may convert the age equivalent as provided by the American Academy of Pediatrics schedule to the academic year equivalent which corresponds to that age. Students may also be tested upon referral or requests of teachers and/or parents. In addition, children should be screened upon evaluation and entrance for a special education program.
2. Vision screening tests should include the following:
    a. Optotype-based screening for distance visual acuity repeat l- 2 years (PreK and K every year. Then, 1 st grade and up every two years thereafter, unless problem.)
    b. Color vision deficiency screening (1 st grade).
    c. External scan.
3. Screening can only be performed by the school RN or designated persons under their supervision if volunteers or other school personnel are used. Acuity and color perception are the only screening tests that can be delegated.
4. Prior to screening the school RN should conduct an external scan of both eyes. Visible abnormalities should be referred immediately, even when students pass vision screening. Suspected eye infections must be cleared by a physician before screening ensues.
5. If the student fails any part of the vision screening, he/she must be screened a second time.
6. Rescreening should be done the same day, or no later than 6 months, using the same tool.
7. The school RN shall keep a record of all screenings, shall be required to follow up on the deficiencies within sixty days, and shall notify in writing the parent or tutor of every pupil found to have any defect of sight. R.S. 17:2112

B. Purpose

1. Early detection and treatment of visual problems.
2. To identify students with eye anomalies which affect learning and/or complicate normal daily living.
3. To minimize the number of students with vision loss.
4. To provide for individual educational needs of students with vision impairment.

C. Personnel

1. School RN

2. Designated school personnel or volunteers trained & supervised by a certified school RN

D. Recommended screening equipment, procedures & referral criteria

Note: Vision screening is not diagnostic. Students who fail the initial screening test and the rescreening test must be referred to an eye specialist for a diagnostic examination. Screening will not identify every student who needs eye care, nor will every student who is referred require treatment.

The National Expert Panel to the National Center for Children's Vision and Eye Health (NCCVEH) at Prevent Blindness recommends the following instruments. The school RN can always refer to the manufacturer's manual for instructions that are more detailed or for tools not included.

Distance Visual Acuity:

Ages 3, 4 and 5 years, or until children know letters in random sequence
- LEA SYMBOLS® or HOTV. 10-foot chart or single, surrounded optotypes at 5 feet.

Ages 6 — 18 year olds — (AAP/Bright Future Periodicity: ages 8, 10, 12, and 15)
- Sloan Letters* or LEA NUMBERS@. 10-foot chart. (*Preferred.)

Optotype-based screening has two approaches for both distance and near acuity screenings:

1. Threshold screening: Moving down a full eye chart with several lines until a child can no longer correctly identify the majority of optotypes on a line.

2. Critical line screening: Using only the line that a child should pass according to the child's age. Critical line screening (Donahue et al., 2016):
    - is the age-dependent line a child is expected to pass (e.g., an 8-year-old child should be able to identify the majority of optotypes on the 20/32 line).
    - is an alternative to threshold screening for detecting children with vision problems, and can be administered more quickly than threshold screening.

*Optional screenings:
Near Visual Acuity: Near charts with 16" measuring cord
- Sloan Letters near chart with 16" measuring cord
- LEA Symbols near chart with 16" measuring cord

Steroacuity — All ages — Recommended use of PASS Test 2.
Color Vision Deficiency Screening - PreK or first enterers.

Color Vision Deficiency Screening

Book with pseudoisochromatic plates (Ishihara or equivalent replace book every 7 years as colors desaturate over time) for first grade, and optional for PreK or first time enterers to school.

- Use cotton swab or brush to protect colors

Occluders: 3 -10 years - Adhesive patches
- 2" wide hypoallergenic surgical tape
- Occluder glasses

10 years and older - "Lollypop" or "Mardi Gras mask" occluders
(Hold "Lollypop" occluders with handle toward temple, not chin.)

Instrument-Based Screening:

Ages 1, 2, 3, 4, and 5 years.
May also be used with students aged 6 years and older who cannot participate in optotype-based screening.

Instrument-based screenings are recorded only as "pass" or "fail."

- Welch Allyn@ Spot™ Vision Screener
- Welch Allyn SureSight Screener v.2.25 (this product is no longer manufactured)
- Plusoptix S 12C Vision Screener
- Retinomax (Right Mfg. Co Ltd.- Tokyo, Japan)

EXTERNAL SCAN PROCEDURE

Essential Steps	Key Points and Precautions
1. Through visual inspection of the student's eyes note whether any abnormal conditions are present.	To ensure that the eyes are in good health by observing the appearance of the eyes and eliciting information regarding behaviors and complaints concerning functional use of the eyes.
2. Refer to physician for the following abnormalities noted: A. Pupils. B. Iris - (colored portion of the eye), C. Eye condition D. Eye movements/alignment E. Eyelids F. Any other abnormal conditions observed should be noted.	**Appearance Signs**: -Crossed eye or "wall" eye (eye turning in, out, up or down). Eye turn may be continuous or intermittent, particularly whe the child is tired. -Continually watering eyes. -Red-rimmed, encrusted, or swollen eyelids -Cloudiness/haze -Unequal pupil size; should be black, round and equal in shape and size. Iris: should be the same color, size and shape -Drooping eyelid(s). Ptosis, commonly called drooping eyelid, is observed as the sagging of an upper eyelid to touch or partially cover the pupil of the eye. -Sties or infections on eyelids -Presence of white pupil. This can be associated with a rare but serious eye disease. The white pupil may be observed when looking directly at the individual's eyes, or in his/her photograph. -Possible eye injury. Watch for eyes that are reddened, bloodshot, blackened, bruised or swollen, or show evidence or lacerations or abrasions.
NOTE: Eyes should not "dance" or "roam" and should be looking straight ahead in a primary position. Stereoacuity can be conducted fur further assessment and referral, if necessary, to ensure both eyes work together to see a 3-D object.	**Behavior Signs**: -Body ridged when looking at distant objects. -Clumsiness or decreased coordination -Thrusting head forward or backward while looking at distant objects. -Tilting head to one side most of the time. -Squinting or frowning when trying to focus, rubs eyes frequently. -Excessive blinking -Closing or covering one eye while doing near work, holds objects very close to eyes when reading.
	Complaint Signs: -Headaches, nausea, or dizziness -Blurred or double vision -Burning, scratchy or itchy eyes -Sees blur when looking up after close work or when looking at whiteboard -Unusual sensitivity to light.

GENERAL VISION SCREENING PROCEDURE

Essential Steps	Key Points and Precautions
1. Test each eye separately; right eye first, then left. (While testing, instruct student to keep both eyes open.)	A separate occluder should be used for each student and discarded after use. If a non-disposable occluder is used, it must be cleaned between each use to prevent the possible spread of infection. Or, use of screening glasses, hypoallergenic tape, or adhesive eye patches.
2. To test the right eye; occlude the left eye.	
3. To test the left eye; occlude the right eye.	At 6+ no instruments, unless the child cannot participate (who are non-verbal, developmentally delayed or otherwise unable to perform testing with acuity charts), and then use of photo screening, documentation under care, or referral. Refer to an eye care professional (pediatric ophthalmologist, or ophthalmologist) with experience examining children.
4. Ask student to identify symbols in order, moving across the line from left to right starting at the referral line.	To pass a line, the student must be able to read (correctly identify), with the arch of foot on line, one more than half the symbols on the line. Begin with the referral line for student's age. Show symbols on the 50-foot line, for those under age 4, and the 40-foot line for those age 4, 5 and 6 year old and older 20/32.
5. If first line is read correctly, proceed to the next smaller line and change direction in which symbols are presented. Continue presenting each smaller line of symbols through the 20-foot line, as long as the student can identify one more than half the symbols on the line.	Change direction with each line presented, i.e., follow a "snake" pattern, to make it more difficult for the student to memorize the responses.
6. If the student can read the 20-foot line correctly, record the visual acuity attained as 20/20.	Visual acuity is recorded as a fraction. The numerator represents the distance away from chart and the denominator the line read, i.e. the use of the “Sloan” or “LEA Numbers” proportionally spaced and resemble an inverted triangle wall chart at 10 ft., would be recorded as passing at 20/32,for age 6+.
7. If the student fails to read a line, repeat this line in the reverse order. If the line is failed twice, record the visual acuity as the next higher line, e.g., if the student fails on the 30-foot line, record the acuity as 20/40 assuming that one more than half the symbols on this line have been read correctly.	
8. Screening of first grade for color perception.	Color perception with the use of pseudoisochromatic plates, i.e., Ishihara, or equivalent. Document screening results and inform parents and teachers, no referral.

Referral Criteria:

1. 3 year olds/PreK - Vision in either eye of 20/50 or poorer (or equivalent measurement).

   This means the inability to identify correctly one more than half the symbols on the 50-foot line on the chart at a distance of 20 feet.

2. 4 years and older – Vision in either eye if 20/40 or poorer (or equivalent measurement).

   This means the inability to identify correctly one more than half the symbols on the 40-foot line at a distance of 20 feet.

3. 6 years are older- Missing 3 or more symbols on the 20/32 line with either eye. (or equivalent measurement of your instrument-based screening.

   This means the inability to identify correctly one more than half the symbols on the 32-foot line at a distance of 20 feet.

Scoliosis/Spinal Screening

A. General Guidelines

A school employee shall refer a student to the school RN for a scoliosis screening when these and other signs are observed:

1. Poor posture
2. Uneven pant or shirt length
3. Difficulty in finding clothing which fits properly
4. Protruding shoulder blades
5. Uneven shoulder heights
6. Noticeable rounding of the back or
7. Noticeable sway- back
8. When a member of the student's family is known to have scoliosis

The school RN may include scoliosis/spinal screening in the general assessment of the health status of the student.

B. Scoliosis/Spinal Screening Purpose

The purpose of scoliosis/spinal screening is to screen the spine for the early detection of abnormal spinal deviations or asymmetry:

1. To refer for further evaluation and appropriate intervention.
2. To reduce physical and/or emotional problems that could occur if the curvature becomes pronounced.