

Aiken County Public Schools
Department of Special Programs

FUNCTIONAL VISION SCREENING ADMINISTRATION PROCEDURES (Adapted for Preschool Child Find)

Note: Training by a certified vision teacher is required prior to use of this instrument.

1. PUPILLARY RESPONSE TO LIGHT

Materials: Penlight

Procedure: Direct the light into the child's eyes from 12 inches away. Observe whether the child's pupils constrict with the introduction of light; then dilate when the light is removed; and the speed with which they do so: briskly, sluggishly, or no response at all.

Observe the child's eyes before shining the light; blind children's pupils may manifest a continual constricting and dilating process, regardless of the presentation of light. Observe the pupils as the child moves from one environment to another in which the room is lighter or darker. Also observe whether the pupils are equal in size.

Score: The child's pupils should immediately constrict with the presentation of light and almost as rapidly readjust when the light is removed. If this behavior is observed, circle **PASS**. If this behavior is not observed, circle **REFER**.

2. BLINK AT SHADOW OF HAND

Materials: None

Procedure: Slowly pass your hand with fingers spread horizontally across the child's line of vision. Repeat several times. If the child is nonambulatory, place the child on his or her back or side and kneel behind the child's head. Be careful that the child is not responding to the wind created by your hand, rather than to the oncoming movement of the hand itself: and that the blinking is in response to the hand, not simply a coincidental response.

Observe whether the child blinks purposefully as the hand passes over the child's eyes.

Score: The child should blink reflexively to the oncoming hand across his line of vision. If this behavior is observed, circle **PASS**. If this behavior is not observed, circle **REFER**.

3. VISUAL FIELD TEST:

Materials: Penlight or small colorful toy

Procedure: Sit behind the child and in front of a mirror, bring the toy or light from behind the child at eye level. Slowly move it from the periphery and toward the center of the child's vision, holding the toy or light approximately 12 to 15 inches away. Move the toy around the left, as well as the right, side of the child's head.

Observe the point at which the child turns to look at the toy or light, and any spot at which the child seems to lose sight of it.

Score: The child should turn his or her eyes to each side when the toy or light is at an angle of 30 inches or more from the midline. If this behavior is observed, circle **PASS**. If this behavior is not observed, circle **REFER**.

4. TRACKS HORIZONTALLY AND VERTICALLY:

Materials: Penlight or small toy

Procedure: Position the object or light about 12" from the child's eyes. Move object to get the child's attention and let him look at it for 2-3 seconds. Slowly move object in an arc to the far left then to the far right for horizontal tracking. Then slowly move the object in an arc up to several inches above the child's head and then down to several inches below his chin for the vertical.

Score: The child's visual tracking should be smooth with minimal head turning. If this behavior is observed, circle **PASS**. If this behavior is not observed or is jerky, circle **REFER**.

5. CORNEAL LIGHT REFLEX:

Materials: Penlight

Procedure: Hold a penlight 8"-10" away from the child's face directly in front of the eyes. Direct the light from the penlight in between the eyebrows. The child needs to fixate either on the penlight or on an object held near the light. Observe the reflection of the penlight in the pupils of both eyes. The reflection should be equally centered and slightly toward the nose.

Score: The reflection should be equally centered in both eyes and can also be slightly nasal. If this is observed, circle **PASS**. If this behavior is not centered in one or both eyes, circle **REFER**. Sensitivity to light, rapid eye movement and poor fixation observed during this test are also reasons for referral.

6. FIXATES ON 4-INCH OBJECT:

Materials: bright squeak toy, toy car, yarn ball, nerf ball, cup, etc., all of which are approximately 4” in size

Procedure: Attract the child’s attention to the object at 12 to 18 inches by wiggling the toy or activating a sound component if possible. Position the object at various places within a 180 degree radius around the child, then move back 5 feet, wiggle or activate the object. Again, position the toy at various places within a 3 foot radius of the child.

Observe whether the child fixates (looks at) his or her gaze for 3 seconds on the object in any position within 12 to 18 inches of the child. At 5 feet, observe whether the child turns his or her head, or eyes, to fixate or look at the object for 3 seconds or more in any position.

Score: The child should look at the object for 3 seconds at 12 to 18 inches and at 5 feet. If this behavior is observed, circle **PASS**. If this behavior is not observed, circle **REFER**.

7. CONVERGENCE:

Materials: Penlight, small puppet, slinky, etc.

Procedure: Sit before the child with the toy or light and attract the child’s attention to it. When the child attends, move the toy or light slowly in toward the bridge of the child’s nose from about 12-16 inches away.

Observe the child’s eyes as the toy or light moves toward the child, paying particular attention to the distance at which the eyes turn in or out, or if the child looks away, turns his or her head, or closes his or her eyes. The eyes should continue to converge on the toy or light until it is 4 inches from the child’s nose. Note also whether both eyes turn in simultaneously or whether one eye turns in or out.

Score: The child should follow the light or object with both eyes until the stimulus is approximately 4 inches from the child’s eyes. If this behavior is observed, circle **PASS**. If this behavior is not observed, circle **REFER**.

8. PICKS UP OR TRACKS

Materials: Black cloth, cake decorations (3mm silver beads, 1mm colored beads), 2 inch lengths of red sewing thread.

Procedure: Position the child over a bolster or wedge, on the floor, or at a table. Be sure to have a high contrast between the materials and the surface on which they rest. Scatter the large beads first, the smaller ones next, and the threads last. The child should be exposed to only one set of items at a time.

Score: Observe the child for any focusing or attempts to pick up the objects. If this behavior is observed, circle **PASS**. If this behavior is not observed, circle **REFER**.