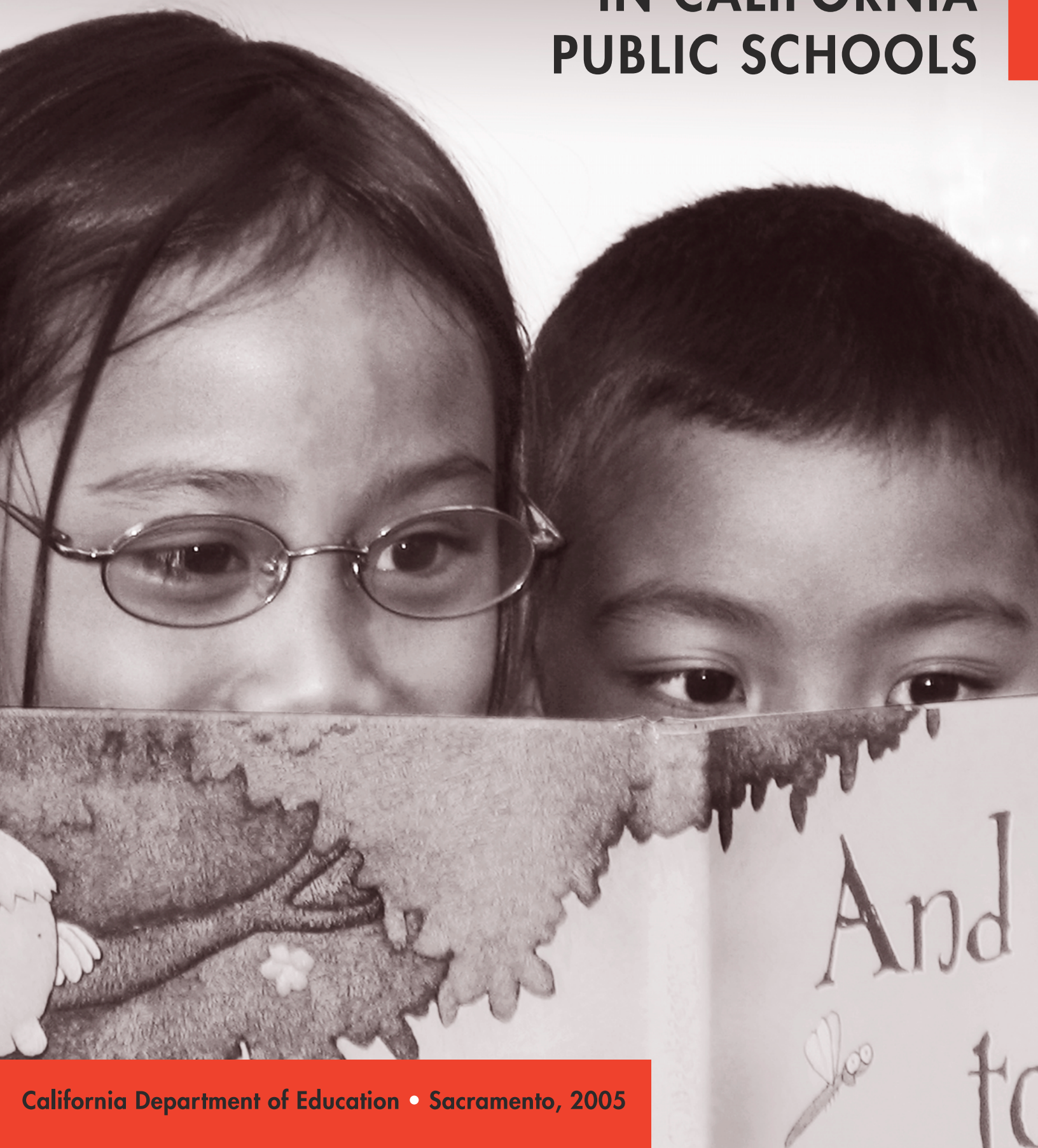
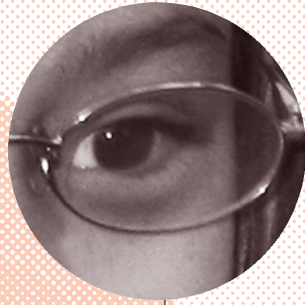


# A GUIDE FOR **VISION TESTING** IN CALIFORNIA PUBLIC SCHOOLS





**A GUIDE  
FOR  
VISION  
TESTING  
IN CALIFORNIA  
PUBLIC  
SCHOOLS**



## Publishing Information

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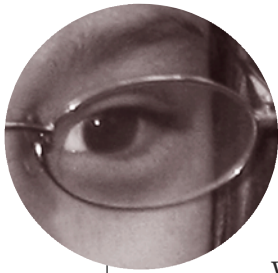
## Notice

The guidance in *A Guide for Vision Testing in California Public Schools* is not binding on local educational agencies or other entities. Except for the statutes, regulations, and court decisions that are referenced herein, the document is exemplary, and compliance with it is not mandatory. (See *Education Code* Section 33308.5.)

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# A Message from the State Superintendent of Public Instruction



**O**ur ability to see greatly impacts our ability to learn. Recognizing the importance of vision, the California Legislature enacted a law in 1947 requiring school districts to screen students' vision at certain grade levels. By doing so, lawmakers acknowledged that we should make every effort to ensure that all students are in the best possible health and that, whenever possible, we help to eliminate or correct students' visual impairments.

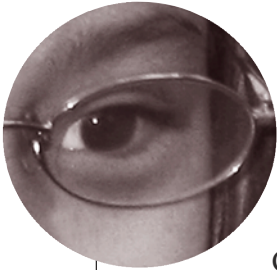
The earlier edition, *A Guide for Vision Screening in California Public Schools*, was last published in 1984. It outlines a model vision screening program to be conducted by qualified personnel under appropriate conditions. The program is designed to ensure that pupils have the necessary visual acuity to participate fully in the learning process. This 2005 edition updates and reinforces the standards for California's school vision testing program.

In preparing this edition, many knowledgeable people with experience in implementing high-quality vision screening programs assisted us, and I thank them for their help.

JACK O'CONNELL

*State Superintendent of Public Instruction*

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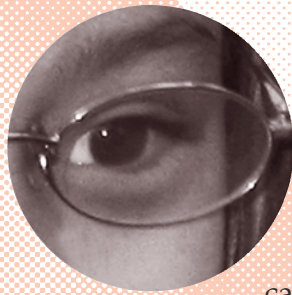
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# Introduction



**California** public schools are committed to providing equal educational opportunities to all students. To fulfill this commitment, schools need to identify students with physical disabilities that could adversely affect learning so that the students can receive appropriate care. The school vision testing program plays a vital role in the early identification of serious vision problems that might negatively affect both the health and learning of children.

The purpose of *A Guide for Vision Testing in California Public Schools* is to provide district and school health personnel with one document that contains guidelines for a vision testing program and the laws and regulations that govern it. The guidelines will facilitate the planning and implementation of programs for assessment of vision so that all students in California public schools may benefit from optimal use of their sense of sight throughout their school years.

The publication is divided into three sections: (1) Introduction; (2) Planning and Follow-up Procedures for Vision Testing; and (3) Procedures for Vision Testing of Nonliterate, Nonverbal, Non-English-Speaking, and Very Young Children and Children with Special Needs. Forms related to vision testing and applicable provisions from the *California Code of Regulations* and the *Education Code* are included in the appendixes. In addition, a glossary of technical terms and a list of selected references are provided.





## Objectives of the Vision Testing Program

A vision testing program meets state requirements when it is provided under the direction of qualified personnel. The major objectives of the vision testing program should be as follows:

1. To prevent the development of a vision difficulty that may affect the student's health and potential for learning
2. To identify students with certain vision liabilities through:
  - a. Administration of selected vision tests
  - b. Planned procedures of observation
3. To notify parents of each student identified as having a possible vision liability and to encourage further examination through a professional vision evaluation
4. To establish follow-up procedures that will ensure that each identified student will receive appropriate care
5. To inform teachers of students who have vision liabilities about vision specialists' recommendations and assist them in planning for needed adjustments in the educational program
6. To train staff to recognize visual deficiencies and determine whether students are adjusting to school work



## Legal Basis for Vision Testing

In 1937 California public schools were permitted for the first time to provide vision testing of students. In 1947 it became mandatory for the governing board of each school district to provide for testing the sight of the students enrolled in the district's schools. Since that time

legislation and regulations specifying the required components of the vision appraisal program (criteria for failure of tests and qualifications for school personnel who administer vision tests) were passed. Pertinent sections of the *Education Code* and *California Code of Regulations, Title 5*, may be found in Appendix A.

In addition, the Child Health Disability Prevention Program, enacted in 1973, requires that each child entering grade one present satisfactory evidence to the governing body that he or she received specified health screening and evaluation services within the prior 18 months. Testing for vision defects is a required component of the program. Through this program children with eye and vision defects, as well as other potentially disabling conditions, are identified, and appropriate treatment is recommended prior to their entering school (*California Code of Regulations, Title 17, Section 6846*; and *Health and Safety Code, Section 124040*).



## Minimum Requirements for a Testing Program at School

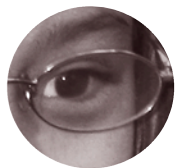
Unless a child has been excused from testing, a more complete evaluation of the child is encouraged to identify any additional problems. The following guidelines suggest a minimum testing program for a school to meet legal requirements:

1. Test all students on school entry and every third year thereafter through grade eight. For example, vision testing may be done in kindergarten<sup>1</sup> or first grade and in grades two, five, and eight, as well as on enrollment and referral at any grade level.
2. Use an optotype test for testing visual acuity at a far point for all students able to read letters. For preliterate students or

<sup>1</sup> Prevent Blindness Northern California recommends initial *school* testing to be done at kindergarten as it may be one of the last opportunities to detect treatable amblyopia.

students with special needs who are unable to read letters of the alphabet, an established optotype vision test should be substituted (for example, Illiterate “E” Chart, HOTV with crowding bars, or Lea symbols). For students who are unable to be tested through the optotype test because of their age or special needs, other types of tests, such as a functional vision test, may be used. Personnel conducting the test should follow the procedures prescribed by the manufacturer and rely on its criteria for a determination of vision failure.

3. Use pseudoisochromatic plates for testing color vision.
4. Record the results of vision testing on the student’s permanent health record.
5. Have teachers make continual observations of students’ appearance and behavior that may indicate vision difficulties.
6. Conduct vision testing of students whose school performance indicates a vision problem.
7. Retest all students who fail the initial test.
8. Notify the parents/guardians of students who fail the second vision test.
9. Assist parents/guardians, when necessary, in a follow-up program.



### Personnel Authorized to Conduct Testing

Personnel in a school district or county office of education who may be required or permitted to give vision tests must be qualified to conduct such tests (*Education Code* Section 49452 and the *California Code of Regulations, Title 5, Education, Section 591*). Only the following persons may conduct vision tests:

- Medical practitioners, including a nurse, physician, ophthalmologist, or optometrist who holds both (1) a license from the

appropriate California board or agency; and (2) a health and development credential, a standard designated service credential with a specialization in health, a health services credential as a school nurse, or a school nurse services credential. Therefore, under Section 591, the only nurse authorized to perform vision testing is the school nurse.

- Certificated school district or county employees who hold a teaching credential and are qualified by training, including satisfactory completion of (1) six hours of vision testing; or (2) an accredited college or university course in vision testing of at least one semester unit.
- Contracting agents who have met the requirements noted above and who have been authorized by the county superintendent of schools in which the district is located to perform tests.

Mandated vision testing must not be conducted by classified (i.e., noncredentialed) employees of the school district or the county office of education.



### Preparation of the Student for Vision Testing

All students should be educated so that they understand the purpose of vision testing and their role in the activity. Education of the student should emphasize:

- The value of early and periodic vision tests
- The relationship of appropriate health and safety practices to the prevention of eye diseases and eye injuries and the preservation of sight
- The prompt medical treatment of correctable and reversible eye health conditions

- Environmental factors that are conducive to eye health and safety

When preparing to test primary students, the school nurse should plan time with the teacher to demonstrate test procedures to the students. For example, if the Illiterate “E” Chart is to be used, a large letter “E” may be turned in various positions to show the students how to use their arms to indicate the direction of the shafts.



### Observation of the Student Prior to Vision Testing

A teacher’s observations of a student’s behavior and appraisal of a student’s achievement before the vision test are exceedingly important because unusual behavior, poor school performance, and reduced rates of learning may indicate health problems, including vision problems.

The teacher observes children involved in classroom activities; therefore, he or she plays a key role in detecting suspected vision problems. A plan for close observation of students by the teacher and immediate referral of suspected vision problems to the school nurse may benefit a student’s school performance.

When a student is scheduled for testing, whether based on self-referral or by class schedule, the teacher’s observations of how students handle tasks involving sight should

be gathered and reviewed. The school nurse may review information gathered during the observation either before or after the actual testing. However, referrals for professional examination should be made only after the review of observations.



### Testing for Visual Acuity

Although the legal requirements for vision testing include the optotype test, the color perception test, teacher observation, and follow-up procedures, tests for vision problems other than for acuity may be advisable. If additional procedures are used, one must consider the cost-effectiveness of the procedures in terms of time, personnel, and the actual yield in the number of students detected by additional procedures and minimize the number of false positives that might lead to excessive referrals. Such additional procedures shall be performed only by trained and qualified personnel, including school nurses, licensed ophthalmologists, and optometrists. A standard testing procedure should be used to test all students. Proper equipment and a suitable physical environment are also required to administer all tests. Table 1 describes the equipment needs, room requirements, arrangement of equipment, testing procedures, recording of results, referral procedures for the optotype test and color perception test, and additional procedures.

**Table 1**  
**Recommendations for Testing for Visual Acuity**

<i>Optotype Test</i>	<i>Color Perception Test</i>	<i>Additional Procedures</i>
<b>EQUIPMENT</b>		
<ul style="list-style-type: none"> <li>• A well-lit optotype wall chart with letters. Ten- or 20-foot charts are available, depending on the size of the room. Be careful to avoid the use of a 20-foot chart at 10 feet.</li> <li>• For preliterate students or for students with special needs who are unable to use the optotype test with letters, use other appropriate optotype tests.               <ul style="list-style-type: none"> <li>- Illiterate “E” Charts</li> <li>- Blackbird</li> <li>- HOTV with crowding bars</li> <li>- Lea symbols</li> </ul> </li> <li>• Use adhesive eye patches for younger students.</li> <li>• Use plastic occluders for older students and clean the occluders with isopropyl alcohol between each use.</li> <li>• Use charts with multiple optotypes in each line, when possible.</li> <li>• Avoid the use of single optotypes (letters or symbols) unless the student cannot be tested with multiple optotypes or unless a single optotype is surrounded with crowding bars.</li> <li>• For students who are unable to be tested through an optotype test because of their age or special needs, other types of vision testing, such as a functional vision test, may be used. The procedures and criteria for a determination of vision failure as prescribed by the manufacturer should be followed.</li> </ul>	<ul style="list-style-type: none"> <li>• Obtain pseudoisochromatic or isochromatic plates from any optical supply company.</li> <li>• Use normal lighting or special color-testing lighting as recommended by the manufacturer of the pseudoisochromatic or isochromatic plates being used.</li> </ul>	<p>Only school nurses, licensed ophthalmologists, and licensed optometrists who have had adequate training in specialized areas to identify visual liabilities other than visual acuity may use additional procedures. The materials required for testing are:</p> <ol style="list-style-type: none"> <li>1. Occluder</li> <li>2. Fixation points</li> <li>3. Penlight or a device that stimulates interest and accommodation, such as a small toy, the penlight inside a translucent toy, or a small sticker attached to a tongue blade</li> <li>4. Polarized glasses</li> <li>5. Polarized stereo depth test (e.g., stereo fly, stereo reindeer, or Randot)</li> <li>6. Distance acuity charts with age-appropriate optotypes</li> <li>7. A +2.5D lens, preferably framed as pediatric-sized glasses</li> </ol>

**EQUIPMENT** (Continued)

<i>Optotype Test</i>	<i>Color Perception Test</i>	<i>Additional Procedures</i>
<ul style="list-style-type: none"><li>• Stereoscopic testing instruments (e.g., Titmus or keystone vision testers) may be used in school vision testing programs. They have the following advantages: they are portable, occupy little space, and need only uniform lighting; and a battery of tests are available. Disadvantages are cost, a tendency for overreferrals to occur, and the poor fit of the large instrument on some young children's faces.</li></ul>		

**ROOM REQUIREMENTS**

<ul style="list-style-type: none"><li>• The room must be a relatively quiet area free of noise and movement that may distract the children being tested.</li><li>• The room must be large enough: 10 or 20 feet of testing space, depending on the size of the room.</li><li>• Ensure normal classroom lighting for the screening room. Exceptions are required for some projection devices; in those cases, the manufacturer's instructions take precedence.</li><li>• Protect students from a light source other than the light of the chart. Other light sources include window light, wall reflections, or light above or behind the chart.</li></ul>	<ul style="list-style-type: none"><li>• Check the manufacturer's recommendations for adequacy of lighting.</li><li>• Avoid light from other sources near the place where the testing is being conducted.</li><li>• Use low-room illumination so that the light reflecting from the colored surfaces of walls or draperies does not reach the test plates. For the same reason, examiners should avoid wearing brightly colored clothing when conducting the test.</li></ul>	
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Optotype Test	Color Perception Test	Additional Procedures
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**ARRANGEMENT OF EQUIPMENT**  
(The arrangement of the equipment is important for accuracy in conducting the tests.)

<ul style="list-style-type: none"> <li>Place the optotype chart at one end of the room with 10 or 20 feet of unobstructed floor space immediately in front of it.</li> <li>Mark a line with tape of either 10 or 20 feet in front of the chart.</li> <li>Place the chart so that the center is approximately at the student's eye level. Adjust the chart height, as necessary, to the student's eye level.</li> <li>Place the optotype chart so that it cannot be seen by students waiting their turn to be screened.</li> </ul>	<ul style="list-style-type: none"> <li>Follow the manufacturer's directions for the best results.</li> </ul>	
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**TESTING PROCEDURES**  
(To secure the confidence, understanding, and cooperation of students taking the test, the person administering the test should explain the purposes and procedures.)

<ul style="list-style-type: none"> <li>Position the student 10 or 20 feet from the appropriate chart, depending on the chart used. The student's eyes must be parallel to and directly above the line.</li> <li>Have older students cover the left eye with an occluder. Proceed to test the right eye. Then reverse the procedure and test the left eye.</li> <li>For younger students, it is recommended that an occlusive, adhesive eye patch be used. Tell the student to keep both eyes open during the test. Make sure the occluder or occlusive eye patch does not press on the eye. The occluder must completely cover the eye, and the observer must watch the pupil to make certain he or she is not cheating.</li> </ul>	<ul style="list-style-type: none"> <li>Administer the test only to male students. (See <i>Education Code</i> Section 49455 in Appendix A.)</li> <li>Follow the manufacturer's directions regarding procedures for testing and scoring of results.</li> <li>Show students how to use the soft, dry paintbrush or cotton-tipped swab to trace the symbols on the color plate.</li> </ul>	<p>Procedures for cover tests, the corneal light reflex (Hirschberg) test for medium to large strabismus, and stereoacuity tests are described as follows. Use only one type of binocular vision (muscle balance) test: the unilateral cover test, the Hirschberg test, or stereopsis.</p> <p><i>Cover tests</i></p> <ul style="list-style-type: none"> <li>The unilateral cover test is used to detect strabismus:               <ol style="list-style-type: none"> <li>Have the student fixate on a distant target.</li> <li>Carefully watch the right eye in a good light.</li> <li>Place the eye cover adjacent to the left eye.</li> </ol> </li> </ul>
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## TESTING PROCEDURES *(Continued)*

<i>Optotype Test</i>	<i>Color Perception Test</i>	<i>Additional Procedures</i>
<ul style="list-style-type: none"> <li>• Use a fresh cup, occluder, or “pirate patch” for each student to prevent the spread of any infectious condition from one student to another, or clean the plastic occluder with a solution of 70 percent isopropyl alcohol after each use.</li> <li>• Tell students who wear glasses to keep the glasses on, unless they say that vision is better without glasses or that the glasses are to be worn only for reading. Then test that student first with glasses on and then without glasses.</li> <li>• Test the right eye first, then the left eye, and then both. A standardized routine avoids confusion and facilitates recording. Observe the student for squinting, forward leaning, or turning the head during testing.</li> <li>• Begin testing with the 20-/40-foot line and proceed with testing through the 10-/20-foot line. Testing beyond the 10-/20-foot line is not necessary.</li> <li>• Begin testing younger students by using larger letters for training and then move to threshold letters.</li> <li>• Use the Illiterate “E” Chart (or other age-appropriate tests) for preliterate students or those with special needs who are unable to read the optotype letters. When using the “E” chart, follow these guidelines:               <ol style="list-style-type: none"> <li>1. Indicate, by hand, which way the “E” points. Oral responses may be agreed upon.</li> <li>2. Avoid fatigue by having the student start reading the equivalent of the 50-foot line if no vision difficulty is suspected.</li> </ol> </li> </ul>		<ol style="list-style-type: none"> <li>4. Quickly cover the left eye while watching the right eye. If the right eye moves inward, outward, up, or downward to fixate the target, strabismus is presumed.</li> <li>5. Repeat the above procedure while observing the left eye and covering the right eye.</li> <li>6. Repeat the procedure at near point.</li> </ol> <ul style="list-style-type: none"> <li>• The alternate cover test is used to detect heterophoria:               <ol style="list-style-type: none"> <li>1. Have the student fixate a distant target, 10 or 20 feet away.</li> <li>2. Place the eye cover over the right eye.</li> <li>3. Move the cover over the bridge of the nose to the left eye while looking directly toward the right eye. If the right eye moves to fixate the target as the cover is removed, heterophoria is presumed.</li> </ol> </li> </ul> <p>Conduct the alternate cover test with the focal point in the reading position. Have the student hold the target at his or her reading distance. A slight inward movement in the alternate cover test is not abnormal.</p> <p><i>Corneal light reflex test (Hirschberg test) for medium- to large-angle strabismus</i></p> <p>The following test is used to distinguish strabismus from facial asymmetry:</p> <ol style="list-style-type: none"> <li>1. Hold a penlight close to the examiner’s dominant eye and direct the light toward the student’s eyes. The student should be directly facing the examiner. Make certain the student is trying to look at the light, not away or beyond it.</li> </ol>

**TESTING PROCEDURES** *(Continued)*

Optotype Test	Color Perception Test	Additional Procedures
<ol style="list-style-type: none"> <li>3. Check the student's performance on the equivalent of the 20-foot line if the student responded readily and correctly to the 50-foot line.</li> <li>4. Move promptly from one symbol or one line to another. Encourage the student to do his or her best to read symbols. Suggest guessing when the student falters. If strain is apparent, do not pressure the student for responses.</li> <li>5. Make appropriate adjustments if the student is unable to read the 100/200 symbols. Move the student forward 5 or 10 feet as necessary. Use the new distance as the numerator in the notation; for example, 15/100, or 10/100, or even 5/100 (distance/foot letter size).</li> <li>6. Follow the same procedure as that used to test older children with the alphabet chart.</li> </ol>		<ol style="list-style-type: none"> <li>2. Observe the images:            If the images of the penlight in the student's eyes appear to be in the same place on each of the student's corneas, then large strabismus is presumed to be absent.            If the images in the student's eyes do not appear to be in the same place in each eye, strabismus is suspected and should be confirmed with the unilateral cover test described earlier.   <i>Stereo acuity/stereopsis/depth perception</i>            This test for binocularity detects amblyopia, suppression, and ocular alignment. It requires polarized glasses and a polarized stereo depth test (e.g., stereo fly, stereo reindeer, or Randot).           <ol style="list-style-type: none"> <li>1. Place the polarized glasses on the student and show the student the large picture of the fly (or reindeer) to demonstrate the upward "float" of the picture. Ask the student to "pinch" the wings (or antlers), guiding the student's hand in from the side rather than straight ahead. Rotating the picture sideways or back and forth will stimulate a peculiar response only in binocular individuals.</li> <li>2. The <i>Randot test</i> (for older children): Ask the student which of the numbered circles is floating toward him or her. <i>Random Dot E test</i> (for younger children): Ask the student if the E appears to rise from the test plate.</li> <li>3. The <i>Lang Stereo Test II</i>: This test combines random dots and cylinder gratings. No special glasses are needed. Follow the manufacturer's instructions.</li> </ol> </li> </ol>



**TESTING PROCEDURES** *(Continued)*

<i>Optotype Test</i>	<i>Color Perception Test</i>	<i>Additional Procedures</i>
		<p>4. The <i>Frisby stereo test</i>: This test uses dots and a hidden cylinder shape. No special glasses are needed. Follow the manufacturer's instructions.</p> <p><i>Hyperopia test</i></p> <p>This test is used for assessing near-distance vision. Assessment of near vision is recommended at least once in a student's school life, preferably in kindergarten or first grade:</p> <ol style="list-style-type: none"> <li>1. Place +2.5D lens (for students of all ages) on the student while the student is facing the optotype chart.</li> <li>2. Occlude one eye and ask the student to read/name the letters, pictures, or symbols on the 20-/30-foot line of the chart or its equivalent on other charts (the 10-/15-foot line on a 10-foot chart).</li> </ol> <p>The inability to read the line or discern the optotypes means the student has passed and probably has no treatable hypermetropia in the eye being tested.</p> <ol style="list-style-type: none"> <li>3. Proceed to the other eye and repeat the process.</li> </ol> <p>If the student successfully names or reads more than half of the letters, pictures, or symbols, the student has failed and needs to be rechecked in about two weeks.</p> <p>If, upon retesting, the student fails the test, refer the parent/guardian to an eye care specialist for further evaluation of the student.</p>

**RECORDING OF TEST RESULTS**

(Most schoolchildren have normal vision. Therefore, it is recommended that the results of the vision test be recorded directly on each student’s cumulative health record. A list should be compiled of only the children who need further attention. Recording test results directly on the cumulative health record saves time and eliminates errors that might occur in transferring results from one record sheet to another.)

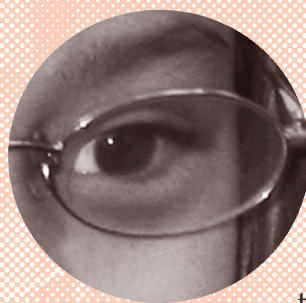
- Record visual acuity separately for the right eye and the left eye. (See Appendix B for the “Rechecks of Vision Testing” form.)
- Record visual acuity as a fraction. The numerator represents the distance from the chart; the denominator is the number of the lowest line read successfully. A student is usually considered to have “passed” a line when he or she can correctly identify more than half of the total letters or symbols on the line. If the student reads the “10-/20-foot” line at 10 or 20 feet, record the fraction 20/20 for the eye tested. If the 20-foot line on a 10-foot chart or 40-foot line on a 20-foot chart is the lowest one read, report the fraction 20/40.  
  
“R” or “O.D.” denotes the right eye and “L” or “O.S.,” the left; for example, R 20/20 and L 20/40.
- Compile a list of only the students who need to be given further attention.
- Retest students suspected of having a vision difficulty before sending parents a referral. Have qualified supervisors of health, as specified in *Education Code* sections 44873, 44877, and 44878, retest those students suspected of having a vision problem in the initial testing. Students whose performance indicates obvious vision liabilities may be retested promptly and referred.
- Record the results on the student’s permanent record.

<i>Optotype Test</i>	<i>Color Perception Test</i>	<i>Additional Procedures</i>
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<b>REFERRAL PROCEDURES</b>		
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<ul style="list-style-type: none"> <li>• For students who fail the retest, notify the parents. Any of the following results is considered failure:               <ol style="list-style-type: none"> <li>1. A visual acuity of 20/50 or worse for children under six years of age. The designation of 20/50 or worse indicates the inability to identify accurately the majority of letters or symbols on the 40-foot line of the test chart at a distance of 20 feet or on the 20-foot line of the test chart at a distance of 10 feet.</li> <li>2. A visual acuity of 20/40 or worse for children six years of age or older. This means the inability to identify the majority of letters or symbols on the 30-foot line of the test chart at a distance of 20 feet or on the 15-foot line of the chart at a distance of 10 feet.</li> <li>3. A difference of visual acuity between the two eyes, for children of all ages, for two lines or more on the optotype chart; for example, visual acuity of 20/20 in one eye and 20/40 in the other or 20/30 in one eye and 20/50 in the other eye.</li> <li>4. A manifestation of significant signs or symptoms (through a student's behavior, complaints, appearance, performance, or physical activity) that suggest a visual difficulty.</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• Failure in this test is not cause for referral.</li> <li>• Inform the parents of the student's vision liability, if present. Advise parents to consult with their physician or eye care specialist for additional information on color vision deficiency. Color deficiency is nonprogressive, cannot be corrected, and does not affect visual acuity.</li> <li>• Inform the teachers and counselors of the student's color vision deficit; however, also inform them that it is not a significant disability in most instances.</li> </ul>	<ul style="list-style-type: none"> <li>• Repeat the appropriate procedures to confirm visual liability before informing parents or guardians.</li> </ul>
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# Planning and Follow-Up Procedures for Vision Testing



**This** chapter contains checklists that may assist in planning and implementing the school vision testing program and follow-up procedures for students with suspected vision problems.

## Checklists for Implementation of a Vision Testing Program

These checklists may be used to help school administrators and vision testers plan for and perform the testing:

### For the Administrator

This checklist indicates some of the essential requirements for a vision testing program in the school. It may be used in planning and evaluating a program.

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	Is the school doing the vision testing on each student every third year (as mandated in <i>Education Code</i> Section 49455)?
<input type="checkbox"/>	<input type="checkbox"/>	Does the vision tester meet the state requirements for personnel conducting vision testing?
<input type="checkbox"/>	<input type="checkbox"/>	Has the school calendar been cleared and dates established for the testing, staff training, student orientation, and testing of absentees?
<input type="checkbox"/>	<input type="checkbox"/>	Has the qualified vision tester been provided with the necessary forms, equipment, and appropriate space?
<input type="checkbox"/>	<input type="checkbox"/>	Does the school nurse have a plan for follow-up on all vision problems found?
<input type="checkbox"/>	<input type="checkbox"/>	Has the school identified community resources available?
<input type="checkbox"/>	<input type="checkbox"/>	Does the school have a plan to coordinate with community agencies that offer help free of charge?
<input type="checkbox"/>	<input type="checkbox"/>	Have parents been informed, in writing, about the vision testing program in the annual notification of parents' rights?

### For the Vision Tester

The vision tester may be the school nurse or other authorized employee pursuant to *Education Code* Section 49452 and *California Code of Regulations, Title 5, Education*, sections 590–592.

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	Is the school performing the vision testing on each student every three years, as mandated in <i>Education Code</i> Section 49455?
<input type="checkbox"/>	<input type="checkbox"/>	Are vision testers trained and qualified in accordance with <i>California Code of Regulations, Title 5, Education</i> , sections 590–592?
<input type="checkbox"/>	<input type="checkbox"/>	Have arrangements been made for appropriate facilities to conduct the testing?
<input type="checkbox"/>	<input type="checkbox"/>	Is there confirmation of community resources to assist in the implementation of the program? Appropriate community personnel may include licensed ophthalmologists, optometrists, and personnel from the Child Health and Disability Prevention Program, California Children Services, Parent Teachers Association, local public health departments, service clubs, and other voluntary organizations.
<input type="checkbox"/>	<input type="checkbox"/>	Is there a supply of "Rechecks of Vision Testing" forms for the program?
<input type="checkbox"/>	<input type="checkbox"/>	Is there a supply of "Report of School Vision Test" forms?

**At the beginning of the year:**

Yes No

- Has the school calendar been cleared and program dates established for a student orientation to vision testing?
- Has the school calendar been cleared and program dates established for staff education?
- Has the school calendar been cleared and dates established for the testing?
- Has the school calendar been cleared and dates established for testing of absentees?
- Have necessary ancillary services been secured (e.g., persons to provide testing assistance and custodial services)?
- Has a suitable physical environment been selected?
- Has the equipment been inspected for proper functioning (e.g., extra bulbs and extension cords)?

**Two to three weeks before the test date:**

Yes No

- Have appropriate personnel confirmed the dates and locations of testing and retesting?
- Are the testing/recording work sheets and health records available?
- Has a vision education program for students been scheduled as close to the test date as possible?
- Is there a plan for follow-up procedures?

**One week before the test date:**

Yes No

- Has the list of students to be tested been updated?
- Have staff and volunteers been reminded of test dates and locations?
- Was a notice included in the school bulletin or paper?
- Has the testing equipment been checked and is it ready for use?
- Are all test materials ready for the implementation of the program?



## Follow-up Procedures

The focus of a follow-up program includes the coordination of activities; interpretation of findings; and transmittal of information among school personnel, parents/guardians, and eye and vision specialists. These important tasks are carried out mainly by the school nurse, along with the help of other school personnel. The success of the program, however, depends on the implementation of systematic follow-up procedures, such as the following:

1. For suspected vision problems the school nurse or designated school personnel is to take the following actions:
  - a. Notify the parents/guardians of a student with suspected vision problems.
  - b. Notify the parents/guardians in writing (refer to Appendix B, "Report of School Vision Test"), by telephone, or through a parent–nurse conference. A conference should be supplemented by a written notice to the parents/guardians regarding their student's apparent eye or vision difficulty.
  - c. Advise the parents/guardians to take the referral form with them to an appointment with a vision or eye practitioner.
  - d. Advise the parents/guardians of the need to return the referral form to the school after obtaining a professional examination. The information on the form is needed by the school as a basis for making any needed adjustments to the student's educational program.
  - e. Do not recommend a particular person or class of practitioner (ophthalmologist or optometrist) for examining, treating, or correcting any defect of the

student (*Education Code* Section 49456).

- f. Maintain contact with the parents/guardians until the student has received the needed examination and necessary care.
- g. Refer parents/guardians in need of financial assistance to one of the following sources:
  - County health and human services agency for Temporary Assistance to Needy Families
  - Lions Club and other fraternal organizations for refractions and glasses
  - PTA and other service organizations
  - California Children Services
  - Vision care plans
  - Child Health and Disabilities Prevention Program
  - Healthy Families and Medi-Cal for Families program
- h. Develop and supervise a system for recording results and pertinent information on a health record.
- i. Consult with teachers and counselors and recommend educational adjustments, if necessary, to meet a student's individual needs.
- j. Follow through with procedures for noncorrectable vision loss (severe vision handicaps).
- k. Inform parents/guardians, if it is the policy of the district, that a student has passed his or her vision test but that testing for visual acuity does not replace a professional eye examination and does not identify all vision problems.

Additional procedures are recommended as components of a successful vision screening program and are as follows:

2. *Follow-up for students with glasses or a known vision defect*

If the student wears glasses or has a

known vision defect, the school nurse or designated school personnel should first check to determine whether the school has a record of the student's eye examination. It is imperative to obtain the results of a professional examination and any recommendations that might affect school performance. If a student has a vision defect, the school nurse or designated school personnel should:

- a. Assist the student in adjusting to the need for corrective lenses if he or she has been prescribed lenses or some other therapeutic intervention, such as a patch.
  - b. Engage in direct student counseling regarding eye health and safety.
  - c. Emphasize the importance of continued follow-up by the student's eye care specialist.
  - d. Help the student understand the reasons for regular examinations by eye care specialists.
  - e. Inform the student of the importance of keeping his or her glasses clean and properly adjusted.
3. *Follow-up procedures for noncorrectable vision loss (severe vision disabilities)*

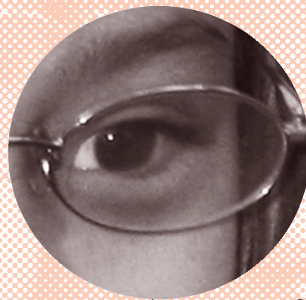
Eye care specialists may identify some students who have vision defects that cannot be fully corrected through treatment. In those cases the school nurse or designated school personnel should take

the following actions:

- a. Counsel parents/guardians regarding severe vision loss.
  - b. Refer parents/guardians to a special education program in the school district or to the county office of education for necessary information regarding social services, low-vision specialists, and school placement.
  - c. Refer parents/guardians to California Children Services as the student may be eligible for services related to his or her vision handicap (e.g., strabismus or cataracts).
  - d. Review the eye care specialist's reports for information about the vision of the student that can be used as a basis for making any needed adjustments in the classroom arrangement or educational program.
  - e. Maintain identification procedures for students with severe vision impairment as well as referral and follow-up services.
4. *Follow-up procedures for students who fail the color vision test*
- a. Failure in this test is not cause for referral to a vision care specialist.
  - b. Use the "Color Vision Test Results" form letter in Appendix B to inform the parents/guardians of the student's vision liability.
  - c. For additional information on notifying parents/guardians and teachers about the student's color vision deficit, see page 12 of this guide.



# Procedures for Vision Testing of Nonliterate, Nonverbal, Non-English-Speaking, and Very Young Children and Children with Special Needs



The organization Prevent Blindness Northern California states that students with special needs have a much higher incidence of eye problems than does the general population. Because those students are more difficult to test, Prevent Blindness Northern California advises that an eye care professional conduct a complete baseline eye examination if those students cannot be tested at school.



## Preschool Testing

Personnel conducting vision tests need to be aware of the following considerations when testing students in preschool, kindergarten, and special education programs.

Students may have:

- Short attention span
- Limitations with verbal expression or language or both
- Partially developed eye–hand coordination
- Fear of new experiences
- Disabilities that hinder responses

Young children and children with special needs require particular attention. The cooperation of parents/guardians, teachers, teacher aides, and other school personnel in ancillary services is important for a successful program. Adults need to be sensitive to children's actions and reactions to new experiences by:

- Understanding the child's fear of health professionals
- Establishing rapport with the child
- Using personnel familiar to the child
- Avoiding the use of terms such as *nurse* and *examination* □
- Conducting testing in familiar surroundings
- Presenting testing as a game
- Using a single-exposure testing card and linear testing or crowded symbols (*Note:* □ Using isolated single-exposure cards is not a sensitive enough test for detecting amblyopia.)
- Orienting children to testing by storytelling or by other innovative methods

Planning, organizing, and implementing a vision testing program for children in need of

special care parallel the steps in the regular testing program and processes described earlier. The exact type of vision tests used should remain open as new ones may be developed in the future.



## Administration of the Test

Vision testing of young children or children with special needs should be conducted by using methods and equipment suitable to a child's developmental level. The child should be tested through use of the highest cognitive assessment tool permitted by her or his developmental level. For children who are unable to comprehend optotype visual acuity test methods, functional vision tests should be used. Charts are rated in descending order of cognitive difficulty as follows: Snellen Sloan letters, Snellen numbers, Illiterate E, HOTV, and then all symbol tests. Symbol charts tend to overestimate actual visual acuity. Use of single optotype testing instruments is to be avoided. The suggested pretesting activities may be carried out in regular classrooms by using the following aids:

- **Illiterate "E" Chart**
  - a. Cut out a large "E" from black construction paper.
  - b. Teach students the up, down, right, and left positions of the "E." Ask in which direction the three legs of the table are pointing.
  - c. Have the student hold the "E" to match the presenter's "E."
- **HOTV Test**

Follow the manufacturer's recommendations. (Teaching students beforehand about the test is usually minimal and can be done at the time of the testing.)

- **Blackbird Vision Screening System**

- a. Ask the teacher, a parent/guardian, or the school nurse to tell the story of the blackbird to the students.
- b. Retell the story to students who need extra help in understanding the flight positions of the blackbird.

- **Modified Sjogren Hand**

- a. Have the students trace their own hands on construction paper as a classroom project.
- b. Teach the various positions of the hand and the direction in which the fingers are pointing while turning the paper and pointing the fingers in various directions.

- **Michigan Vision Screener**

- a. Draw a cloud at the top of a large piece of paper, grass at the bottom, a rabbit on the right, and a flower on the left. Pin a black illiterate “E” letter (which can be made from construction paper) in the center.
- b. Turn the “E” in different positions and ask the students to identify the object the letter is pointing to.



## Environment and Equipment

Testing should be done with the use of furniture appropriate to the student's size and equipment suggested by the manufacturer for a particular test method. For more details on room environment and arrangement of equipment, refer to Table 1, “Recommendations for Testing for Visual Acuity.”



## Program Implementation

The other procedures, such as planning, referral, recording, and follow-up, are conducted in the same manner as are the regular vision test procedures outlined in the previous section. Refer to the checklists and procedural details on pages 5 through 12.

## Appendixes

### **A. Legal and Administrative Provisions**

### **B. Forms for Use in Vision Testing**

# Appendix A

## Legal and Administrative Provisions

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### *California Code of Regulations*

#### *Title 5. EDUCATION*

#### **Division 1. California Department of Education**

#### **Chapter 2. Pupils**

#### **Subchapter 3. Health and Safety of Pupils**

#### **ARTICLE 4. VISION TESTING**

##### **§590. Duly Authorized Agency.**

Pursuant to Education Code Section 49452, a county superintendent of schools may contract with an agency duly authorized to provide vision tests, which includes a city or county health department, a local health district, or the State Department of Health Services.

*NOTE:* Authority cited: Section 33031, Education Code. Reference: Section 49452, Education Code.

##### **§591. Employees Authorized to Give Tests.**

(a) An employee of a school district or of a county superintendent of schools may be authorized to give vision tests pursuant to Education Code Section 49452 and may be designated a “duly qualified supervisor of health” within the meaning of that section if the employee is:

- (1) A physician and surgeon or osteopath employed pursuant to Education Code Section 44873.
- (2) A school nurse employed pursuant to Education Code Section 44877.
- (3) An optometrist employed pursuant to Education Code Section 44878.

(b) Any other certificated employee of the school district or of the county superintendent of schools may be authorized to give vision tests pursuant to Education Code Section 49452 if the employee has one of the following documents:

- (1) A statement from a qualified supervisor of health that the employee has satisfactorily completed an acceptable course of in-service training in techniques and procedures in vision testing of at least six clock hours given by the qualified supervisor of health making the statement and that the employee is qualified to administer vision tests to pupils.
- (2) A transcript from an accredited college or university evidencing that the employee has successfully completed an acceptable course in vision testing of at least one semester unit.

*NOTE:* Authority cited: Section 33031, Education Code. Reference: Sections 44873, 44877, 44878, and 49452, Education Code.

##### **§592. Acceptable Courses in Vision Testing.**

An acceptable course in vision testing is one that provides the following:

- (a) Basic knowledge of the structure, normal development, and function of the eye and common anomalies of vision and factors influencing visual performance.
- (b) Basic knowledge of signs and symptoms suggesting eye difficulty.
- (c) Techniques and procedures in administering optotype and color vision tests. Such techniques and procedures shall include training in the following:
  - (1) Establishing test rapport with pupils.
  - (2) Seating of pupil and placing of equipment.

- (3) Providing adequate lighting conditions for the testing situation.
  - (4) Recording test results.
  - (5) Referring pupils in need of follow-up.
- (d) Practice in administering optotype and color vision tests under the supervision of a duly qualified supervisor of health.

*NOTE:* Authority cited: Section 33031, Education Code. Reference: Section 49452, Education Code.

#### **§593. Responsibility as to Eligibility.**

Each school district and county superintendent of schools shall determine and be responsible for the eligibility of personnel employed or permitted by the district or county superintendent of schools to administer vision tests or to conduct inservice training programs in techniques and procedures in administering such tests.

*NOTE:* Authority cited: Section 33031, Education Code. Reference: Section 49452.

#### **§594. Test of Visual Acuity.**

- (a) The test of visual acuity administered pursuant to Education Code Sections 49452 and 49455 shall mean a test for visual acuity at the far point. This shall be conducted by means of an optotype test. Test failure for the visual acuity test shall be defined as follows:
- (1) For children under six years of age: Visual acuity of 20/50 or worse. The designation 20/50 or worse indicates the inability to identify accurately the majority of letters or symbols on the 20-foot line of the test chart at a distance of 10 feet.
  - (2) For children six years of age or older: Visual acuity of 20/40 or worse. This means the inability to identify the majority of letters or symbols on 15-foot line of the chart at a distance of 10 feet.
  - (3) For all children: A difference of visual acuity between the two eyes of two lines or more on the optotype chart.
- (b) For pupils who, because of age or special needs are not able to be tested with an optotype test, other types of vision testing, such as a functional vision test, may be utilized, using procedures and criteria of failure as described by the manufacturer.
- (c) If a pupil fails a vision test that is conducted by an employee authorized to give vision tests pursuant to subdivision (b) of Section 591, a reevaluation shall be conducted prior to a report being made to the pupil's parent or guardian. This reevaluation shall be conducted by an employee authorized to give vision tests pursuant to subdivision (a) of Section 591.
- (d) If a pupil fails a vision test conducted by an employee authorized to give vision tests pursuant to subdivision (a) of Section 591, a report shall be made to the pupil's parent or guardian as required by Education Code Section 49456.

*NOTE:* Authority cited: Section 33031, Education Code. Reference: Sections 3308.5, 49452, 49455, and 49456, Education Code.

#### **§595. Appraisal of Color Vision.**

The appraisal of color vision in male pupils pursuant to Education Code Sections 49452 and 49455 shall mean a test employing pseudoisochromatic plates. Procedures and criteria of failure as described by the manufacturer shall be used.

*NOTE:* Authority cited: Section 33031, Education Code. Reference: Sections 49452 and 49455, Education Code.

#### **§596. Gross External Observation of the Children's Eyes, Visual Performance and Perception.**

Gross external observation of the children's eyes, visual performance and perception, pursuant to Education Code Sections 49452 and 49455, shall mean continuous observation by teachers of the appearance, behavior and complaints of pupils that might indicate vision problems. Also, periodic investigation where pupils' school performance begins to give evidence that existence of the problem might be caused by a visual difficulty. Such an evaluation shall be done in consultation with the school nurse.

*NOTE:* Authority cited: Section 33031, Education Code. Reference: Sections 49452 and 49455, Education Code.

*Education Code*  
**Title I, Division 1, Part 2, Chapter 6**  
**ARTICLE 6. SUPERVISION OF HEALTH**

**Employment of Supervisors of Health**

§1750. The county superintendent of schools may, with the approval of the county board of education, employ one or more supervisors of health, as supervisors of health are defined in Section 49420, to provide health services to pupils in elementary school districts under his jurisdiction which had less than 901 units of average daily attendance during the preceding fiscal year, to pupils in high school districts under his jurisdiction which had less than 301 units of average daily attendance during the preceding fiscal year, and to pupils in unified school districts under his jurisdiction which had less than 1,501 units of average daily attendance during the preceding fiscal year.

(Stats. 1976, c. 1010, § 2, operative April 30, 1977)

**Authority to Contract for Provision of Health Services**

§1751. In lieu of employing supervisors of health, the county superintendent of schools may, with the approval of the county board of education, contract with the board of supervisors of the county in which he holds office, or with any local health district located wholly or partially within such county, for the provision of health services by employees of the county health department or local health district to pupils in the school districts specified in Section 1750.

(Stats. 1976, c. 1010, § 2, operative April 30, 1977)

**Provision of Health Service under District Agreement**

§1752. The county superintendent of schools may, with the approval of the county board of education, enter into an agreement with the governing board of any school district under his jurisdiction for the provision of any or all health services to the district by the county superintendent of schools. The agreement shall provide for the payment of the cost of providing the services. The county superintendent of schools shall transfer from the funds of the district to the county school service fund the amounts set forth in the agreement.

(Stats. 1976, c. 1010, § 2, operative April 30, 1977)

**Credential Requirements**

§1753. The services described in Section 1750, 1751, and 1752 shall be performed by persons who hold a valid health and development credential, or life diploma based thereon, or a services credential with a specialization in health issued by the State Board of Education or Commission for Teacher Preparation and Licensing; provided, however, that a psychologist may be employed to perform psychological services or may perform psychological services under contract if he is the holder of a valid school psychologist credential issued by the State Board of Education.

(Stats. 1976, c. 1010, § 2, operative April 30, 1977)

**Duties of Supervisors of Health**

§1754. A supervisor of health employed by the county superintendent of schools shall perform such duties in connection with the supervision of health of pupils as are prescribed by the county superintendent of schools. All rules governing health services provided pursuant to Sections 1750, 1751, or 1752 shall be made by the county superintendent of schools.

(Stats. 1976, c. 1010, § 2, operative April 30, 1977)

## **Title 2, Division 3, Part 25, Chapter 4**

### **ARTICLE 2. EMPLOYMENT**

#### **Qualifications of Supervisors of Health**

§44871. The qualifications of supervisors of health shall be as provided in Sections 44873 to 44878, inclusive. (Stats. 1976, c. 1010, § 2, operative April 30, 1977)

#### **Standard Designated Services Credential With a Specialization in Health; Services Credential With a Specialization in Health**

§44872. For the purposes of Sections 44873 to 44878, inclusive, "standard designated services credential with a specialization in health" and "services credential with a specialization in health" includes a community college health services credential when the service is provided in grades 13 and 14. (Stats. 1976, c. 1010, § 2, operative April 30, 1977)

#### **Qualifications for Nurse**

§44877. The qualifications for a nurse shall be a valid certificate of registration issued by the Board of Nurse Examiners of the State of California or the California Board of Nursing Education and Nurse Registration and a health and development credential, a standard designated services credential with a specialization in health, or a services credential with a specialization in health.

The services credential with a specialization in health authorizing service as a school nurse shall not authorize teaching services unless the holder also completes the requirements for a special class authorization in health in a program that is approved by the commission.

On and after January 1, 1981, the qualifications for a nurse shall also include proof satisfactory to the school district that the nurse has acquired training in child abuse and neglect detection. This requirement may be satisfied through participation by the nurse in continuing education activities relating to child abuse and neglect detection and treatment.

(Stats. 1976, c. 1010, § 2, operative April 30, 1977. Amended by Stats. 1978, ch. 1225, p. 3958, § 5; Stats. 1994, c. 1972 [S.B. 1471] § 2.)

#### **Qualifications for Optometrist**

§44878. The qualifications for an optometrist are a valid certificate issued by the State Board of Optometry and a services credential with a specialization in health or a credential issued prior to November 23, 1970. Any school district may employ and compensate optometrists meeting the foregoing qualifications. (Stats. 1976, c. 1010, § 2, operative April 30, 1977)

## **Title 2, Division 4, Part 27, Chapter 9**

### **ARTICLE 1. GENERAL POWERS—SCHOOL BOARDS**

#### **Health and Physical Development of Pupils**

§49400. The governing board of any school district shall give diligent care to the health and physical development of pupils, and may employ properly certified persons for the work. (Stats. 1976, c. 1010, § 2, operative April 30, 1977)



## Title 2, Division 4, Part 27, Chapter 9

### ARTICLE 2. EMPLOYMENT OF MEDICAL PERSONNEL

#### **Supervision of Health and Physical Development of Pupils**

§49422. No physician, psychiatrist, oculist, dentist, dental hygienist, optometrist, otologist, podiatrist, audiologist, or nurse not employed in such capacity by the State Department of Health Services, shall be, nor shall any other person be, employed or permitted to supervise the health and physical development of pupils unless he holds a services credential with a specialization in health or a valid credential issued prior to the operative date of Section 25 of Chapter 557 of the Statutes of 1990.

- (b) Any psychologist employed pursuant to Section 49400 and this article shall hold a school psychologist credential, a general pupil personnel services credential authorizing service as a school psychologist, a standard designated services credential with a specialization in pupil personnel services authorizing service as a psychologist, or services credential issued by the State Board of Education or Commission on Teacher Credentialing.
- (c) The services credential with a specialization in health authorizing service as a school nurse shall not authorize teaching services unless the holder also completes the requirements for a special class authorization in health in a program that is approved by the commission.
- (d) No physician employed by a district to perform medical services pursuant to Section 44873, who meets the requirements of that section, shall be required to hold a credential issued by the State Board of Education or commission.

(Stats. 1976, c. 1010, § 2, operative April 30, 1977. Amended by Stats. 1981, c. 714, p. 2616, § 94, Stats. 1994, c. 172 [S.B. 1471] § 33; Stats. 1996, c. 661 [A.B. 3188], § 1.)

#### **School Nurse; Permissible Services; Legislative Intent**

§49426. A school nurse is a registered nurse currently licensed under Chapter 6 (commencing with Section 2700) of Division 2 of the Business and Professions Code, and who has completed the additional educational requirements for, and possesses a current credential in, school nursing pursuant to Section 44877.

School nurses strengthen and facilitate the educational process by improving and protecting the health status of children and by identification and assistance in the removal or modification of health-related barriers to learning in individual children. The major focus of school health services is the prevention of illness and disability, and the early detection and correction of health problems. The school nurse is especially prepared and uniquely qualified in preventive health, health assessment, and referral procedures.

Nothing in this section shall be construed to limit the scope of professional practice or otherwise to change the legal scope of practice for any registered nurse or other licensed health [sic] arts practitioner. Rather, it is the intent of the Legislature to provide positively for the health services, many of which may be performed in the public schools only by physicians and school nurses. School nurses may perform, if authorized [sic] the local governing board, the following services:

- (a) Conduct immunization programs pursuant to Section 49403 and assure that every pupil's immunization status is in compliance with the law, including parental or guardian consent, and good health practice.
- (b) Assess and evaluate the health and developmental status of pupils to identify specific physical disorders and other factors relating to the learning process, communicate with the primary care provider, and contribute significant information in order to modify the pupils' educational plans.
- (c) Interpret the health and developmental assessment to parents, teachers, administrators, and other professionals directly concerned with the pupil.
- (d) Design and implement a health maintenance plan to meet the individual health needs of the students, incorporating plans directed by a physician.
- (e) Refer the pupil and his or her parent or guardian to appropriate community resources for necessary services.

- (f) Maintain communication with parents and all involved community practitioners and agencies to promote needed treatment and secure reports of findings pertinent to educational planning.
- (g) Interpret medical and nursing findings, appropriate to the student's individual educational plan and make recommendations to professional personnel directly involved.
- (h) Consult with, conduct in-service training to, and serve as a resource person to teachers and administrators, and act as a participant in implementing any section or sections of a comprehensive health instruction curriculum for students by providing current scientific information regarding nutrition, preventative dentistry, mental health, genetics, prevention of communicable diseases, self-health care, consumer education, and other area of health.
- (i) Counsel pupils and parents by:
  - (1) Assisting children and youth, parents, and school personnel in identifying and utilizing appropriate and mutually acceptable private and community health delivery services for professional care and remediation of defects.
  - (2) Counseling parents, pupils and school staff regarding health-related attendance problems.
  - (3) Helping parents, school personnel and pupils understand and adjust to physical, mental and social limitations.
  - (4) Exploring with families and pupils, attitudes, information and values which affect their health behavior.
- (j) Assist parents and pupils to solve financial, transportation and other barriers to needed health services.

The holder of a services credential with a specialization in health for a school nurse who also completes the requirements for a special class authorization in health in a program that is approved by the commission is authorized to teach classes on health in a preschool, kindergarten, grades 1 to 12, inclusive, and classes organized primarily for adults.

(Added by Stats. 1978, c. 1062, p. 3273, § 1. Amended by Stats. 1994, c. 172 [S.B. 1471], § 4.)

## Title 2, Division 4, Part 27, Chapter 9

### ARTICLE 4. PHYSICAL EXAMINATIONS

#### **Rules to Insure Proper Care and Secrecy**

§49450. The governing board of any school district shall make such rules for the examination of the pupils in the public schools under its jurisdiction as will insure proper care of the pupils and proper secrecy in connection with any defect noted by the supervisor of health or his assistant and may tend to the correction of the physical defect.

(Stats. 1976, c. 1010, § 2, operative April 30, 1977)

#### **Parent's Refusal to Consent**

§49451. A parent or guardian having control or charge of any child enrolled in the public schools may file annually with the principal of the school in which he is enrolled a statement in writing, signed by the parent or guardian, stating that he will not consent to a physical examination of his child. Thereupon the child shall be exempt from any physical examination, but whenever there is a good reason to believe that the child is suffering from a recognized contagious or infectious disease, he shall be sent home and shall not be permitted to return until the school authorities are satisfied that any contagious or infectious disease does not exist.

(Stats. 1976, c. 1010, § 2, operative April 30, 1977)

#### **Sight and Hearing Test**

§49452. The governing board of any school district shall, subject to Section 49451, provide for the testing of the sight and hearing of each pupil enrolled in the schools of the district. The test shall be adequate in nature and shall be given only by duly qualified supervisors of health employed by the district; or by certificated employees of the district or of the county superintendent of schools who possess the qualifications prescribed by the

Commission for Teacher Preparation and Licensing; or by contract with an agency duly authorized to perform such services by the county superintendent of schools of the county in which the district is located, under guidelines established by the State Board of Education; or accredited schools or colleges of optometry, osteopathy, or medicine. The records of the tests shall serve as evidence of the need of the pupils for the educational facilities provided physically handicapped individuals. The equipment necessary to conduct the tests may be purchased or rented by governing boards of school districts. The state, any agency, or political subdivision thereof may sell or rent any such equipment owned by it to the governing board of any school district upon such terms as may be mutually agreeable.

(Stats. 1976, c. 1010, § 2, operative April 30, 1977. Amended by Stats. 1993, c. 226 [A.B. 1987], § 7.)

### **Vision Appraisal**

§49455. Upon first enrollment in a California school district of a child at a California elementary school, and at least every third year thereafter until the child has completed the eighth grade, the child's vision shall be appraised by the school nurse or other authorized-person under Section 49452. This evaluation shall include tests for visual acuity and color vision; however, color vision shall be appraised once and only on male children, and the results of the appraisal shall be entered in the health record of the pupil. Color vision appraisal need not begin until the male pupil has reached the first grade. Gross external observation of the child's eyes, visual performance, and perception shall be done by the school nurse and the classroom teacher. The evaluation may be waived, if the child's parents so desire, by their presenting of a certificate from a physician and surgeon or an optometrist setting out the results of a determination of the child's vision, including visual acuity and color vision.

The provisions of this section shall not apply to any child whose parents or guardian file with the principal of the school in which the child is enrolling, a statement in writing that they adhere to the faith or teachings of any well-recognized religious sect, denomination, or organization and in accordance with its creed, tenets, or principles depend for healing upon prayer in the practice of their religion.

(Stats. 1976, c. 1010, § 2, operative April 30, 1977. Amended by Stats. 1978, c. 843, p. 2660, § 18.)

### **Report to Parent**

§49456. (a) When a defect other than a visual defect has been noted by the supervisor of health or his assistant, a report shall be made to the parent or guardian of the child, asking the parent or guardian to take such action as will cure or correct the defect. Such report, if made in writing, shall not include any recommendation suggesting or directing the pupil to a designated individual for the purpose of curing or correcting any defect referred to in the report.

(b) When a visual defect has been noted by the supervisor of health or his assistant, a report shall be made to the parent or guardian of the child, asking the parent or guardian to take such action as will correct the defect. Such report, if made in writing, must be made on a form prescribed or approved by the Superintendent of Public Instruction and shall not include therein any recommendation suggesting or directing the pupil to a designated individual or class of practitioner for the purpose of correcting any defect referred to in the report.

(c) The provisions of this section do not prevent a supervisor of health from recommending in a written report that the child be taken to a public clinic or diagnostic and treatment center operated by a public hospital or by the state, county, or city department of public health.

(Stats. 1976, c. 1010, § 2, operative April 30, 1977. Amended by Stats. 1978, c. 843, p. 2660, § 19.)

### **Report to Governing Board**

§49457. The supervisor of health shall make such reports from time to time as he deems best to the governing board of the school district, or as the board may call for, showing the number of defective children in the schools of the district and the effort made to correct the defects.

(Stats. 1976, c. 1010, § 2, operative April 30, 1977)

## Appendix B

# Report of School Vision Test

(This form is approved by the State Superintendent of Public Instruction, as required by *Education Code* Section 49456, for reporting results of vision testing to parents and guardians and for obtaining recommendations from the professional examiner.)

Dear Parent/Guardian:

Your child recently received a vision test at school.

The following results were obtained:

Optotype test: right eye 20/ \_\_\_\_\_ left eye 20/ \_\_\_\_\_

Additional procedures \_\_\_\_\_

Comments \_\_\_\_\_

It is recommended that your child's eyes be examined by an eye or vision practitioner.

It is requested that you take this form with you, have it completed by the examiner, and then return it to your school's health office.

Name of school \_\_\_\_\_

Address \_\_\_\_\_

Date \_\_\_\_\_ Grade \_\_\_\_\_ Teacher \_\_\_\_\_ Phone \_\_\_\_\_

\_\_\_\_\_  
(Signature of school nurse)

Report of Vision Test to the School				
Name of student	School	Grade	Date examined	Date of reexamination
Visual acuity		Lens requirements		
<i>Without lens</i> R 20/_____ L 20/_____	<i>With lens</i> R 20/_____ L 20/_____	<i>Results</i> <input type="checkbox"/> Correction not required for right eye <input type="checkbox"/> Correction not required for left eye <input type="checkbox"/> Glasses <input type="checkbox"/> Contact lens	<i>Frequency</i> <input type="checkbox"/> Wear at all times <input type="checkbox"/> Wear for close work <input type="checkbox"/> Wear for distance only	
<b>Diagnosis</b>		<b>Recommendation</b> (special seating, large print, special education placement, etc.)		
Examiner's signature	Address		Phone Number	

I give permission to share this information with the school.

\_\_\_\_\_  
(Signature of parent)

# Appendix B Rechecks of Vision Testing

This form may be used for recording vision test results for those children who need follow-up.<sup>1</sup>

School \_\_\_\_\_ Grade \_\_\_\_\_ Teacher \_\_\_\_\_ Date \_\_\_\_\_

Name of Student	Initial Optotype Test				Color Test		Recheck Optotype Test				Additional Procedures <sup>2</sup>	Referrals	
	Without glasses		With glasses		Normal	Defective	Without glasses		With glasses				
	R	L	Both	R			L	Both	R	L			Both
1													
2													
3													
4													
5													
6													
7													
8													
9													
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18													
19													
20													

<sup>1</sup> Most schoolchildren have normal vision; therefore, it is recommended that test results be recorded directly on the student's cumulative health record and that this form include only those students who need follow-up.

<sup>2</sup> Include testing for muscle balance and peripheral vision.

## Appendix B

# Color Vision Test Results

Date \_\_\_\_\_

Dear Parent/Guardian:

During a recent color vision test, your child \_\_\_\_\_ was found to have a color vision deficiency. This is not considered a serious disability; however, its presence is important knowledge for parents and school personnel.

Color vision deficiency is the inability to distinguish between certain shades of color. The difficulty with color perception usually involves the discernment of red and green or those colors with red and green in them. For example, a person with a color deficiency may view red, orange, and green objects as yellow objects or violet and purple objects as dull blue. True color blindness, in which everything is seen in shades of gray, is rare.

Color vision deficiency is not a disease. It is an inherited condition seldom found in females, but approximately one in 12 boys is born with it. There is no treatment for color vision deficiency. Fortunately, this condition is more of an inconvenience than a disability. Most people with a color vision deficiency adapt by learning to distinguish colors according to varying degrees of brightness.

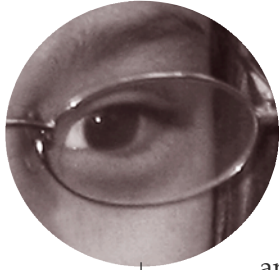
Awareness of the color vision deficiency is important as it may affect a person's performance in certain kinds of educational activities involving color. We suggest you share this information with your child's teacher at the beginning of each school year. In addition, a color vision deficiency may exclude some people from certain occupations for which normal color vision is required. If you would like more information regarding your child's color vision deficiency, please contact your family eye care specialist.

Sincerely,

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*(Signature of School Nurse)*

# Glossary



**Accommodation.** The power (or ability) of the eye to alter the shape of its lens so that it can adjust the focus of the eye for distance and closeness.

**Amblyopia.** Dimness (or reduced acuity) of vision (or an eye) without any apparent disease of the eye.

**Amblyopia ex anopsia.** Dimness of vision because of disuse of an eye with no apparent physical abnormality.

**Anisometropia.** A condition in which the refractive power of the eyes is unequal.

**Astigmatism.** A condition in which the optical (or outer) surfaces of the eye are distorted so that light rays are not sharply focused on the retina for either near or distant vision.

**Binocular vision.** The use of both eyes simultaneously in such a manner that each retinal image contributes to the final percept of a single image.

**Central visual acuity.** Ability of the eye and brain to perceive the shape and form of objects in the direct line of vision.

**Convergence.** The directing of visual lines to a nearby point.

**Color deficiency.** The inability to discriminate between certain colors, usually red-green, seldom blue-yellow. Pseudoisochromatic plates are used to test for color deficiency.

**Color vision.** The inability to discriminate colors.

**Cover test.** A test for ocular alignment that discloses whether or not the two eyes function together as they should. The unilateral cover test is used to discover strabismus. The alternate cover test is used to discover heterophoria or to quantify strabismus.

**Diopter.** The refractive power of a lens. It is used as a unit of measurement in refraction.

**Diplopia.** Double vision, which may be monocular.

**Esotropia.** Marked turning inward of the eye; crossed eyes.

**Exotropia.** Divergent strabismus; abnormal turning outward of one or both eyes.

**Field of vision.** The entire area that can be seen at one time without shifting the head or eyes.

**Fixation.** Movement of the eyes so that the visual axes meet and the image of an object falls on the corresponding points of each retina.

**Focal point.** The point to which rays are converged after passing through a lens.

**Fusion.** The power (or ability) of coordinating the images received by the two eyes (or each eye) into a single mental image.

**Heterophoria.** A tendency for deviation of the eyes, when fusion is suspended.

**Heterotropia.** A manifest deviation of the eyes resulting from the absence of binocular equilibrium.

**Esophoria.** A tendency for the eyes to turn inward, when fusion is suspended.

**Exophoria.** A tendency for the eyes to turn outward, when fusion is suspended.

**Hypermetropia.** Hyperopia.

**Hyperopia.** Farsightedness is a refractive error in which the image does not come to focus before striking the retina in the relaxed eye. Accommodation may be used to overcome small amounts of hyperopia.

**Monocular.** Involving the use of a single eye.

**Myopia.** Nearsightedness is a refractive error in which the point of focus for light rays is in front of the retina, resulting in blurred distant vision.

**Occlusion.** Obscuring the vision of one eye to test the vision or force the use of the other eye.

**Ophthalmologist.** A physician who has specialized in the diagnosis and treatment of vision defects and diseases of the eye. An ophthalmologist may prescribe glasses, contact lenses, and other corrective measures and perform surgery. The initials *M.D.* are used after the person's name.

**Optician.** A professional who fills optical prescriptions for glasses by grinding lenses, fitting them into frames, and adjusting frames to the wearer.

**Optometrist.** A professional who has done advanced study on the eye, vision problems, and visual performance. The person is licensed by law to examine eyes and vision, to prescribe and provide glasses and contact lenses, to provide orthoptic training, and to treat ocular disease. The initials *O.D.* are used after the person's name.

**Orthophoria.** Parallelism of visual axes, the normal eye muscle balance.

**Squint.** Strabismus.

**Strabismus.** Failure of the two eyes to direct their gaze at the same object because of inappropriate neuromuscular control or because of fibrosis or paralysis of one or more extraocular muscles, as in crossed eyes or walleyes.

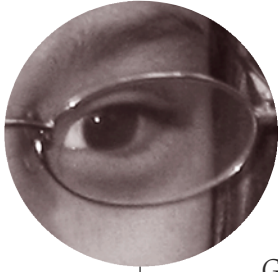
**Stereopsis.** Stereoscopic vision.

**Visual acuity.** Sharpness of central vision for detail, as in reading. Vision acuity measurements indicate the smallest recognizable figure or symbol in central vision.

**Visual field.** The area within which objects may be seen when the eye is fixed.



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