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ABSTRACT

These California state guidelines are intended as a resource for parents staff, and administrators in assessing, identifying, planning, providing, evaluating, and improving the quality and cost effectiveness of programs serving visually impaired students. Chapters have the following titles and sample subtopics: (1) "Introduction" (purpose, scope, and use of the guidelines); (2) "Identifying the Unique Educational Needs Related to a Visual Impairment" (communication and social/emotional needs, daily living skills, career and vocational needs); (3) "Assessing Unique Educational Needs" (eligibility for special education, identification of visually impaired students, assessment personnel, variables affecting educational needs); (4) "Planning and Providing Instruction and Services" (concept development and academic needs, orientation and mobility instruction, daily living skills instruction, materials and equipment, roles and responsibilities of key individuals); and (5) "Organizing and Supporting Instruction and Services" (administrative roles and responsibilities, placement in the least restrictive environment, staff and supervision). Seven appendices with information on assessing vision, the California School for the Blind, state hospital programs, sources of funding, legal requirements, and technical assistance, as well as a glossary, complete the guide. (DB)

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Program Guidelines for Visually Impaired Individuals

Legal Requirements for Publishing

These guidelines have been developed pursuant to *Education Code* Section 56136, which requires the Superintendent of Public Instruction to:

... develop guidelines for each low-incidence disability area and provide technical assistance to parents, teachers, and administrators regarding the implementation of the guidelines. The guidelines shall clarify the identification, assessment, planning of, and the provision of specialized services to pupils with low-incidence disabilities. The superintendent shall consider the guidelines when monitoring programs serving pupils with low-incidence disabilities pursuant to Section 56825. The adopted guidelines shall be promulgated for the purpose of establishing recommended guidelines and shall not operate to impose minimum state requirements.

Program guidelines, according to *Education Code* Section 33308.5, "shall be designed to serve as a model or example and shall not be prescriptive." These guidelines have been developed cooperatively by teachers, parents, and administrators to serve as a model for providing a quality, cost-effective education to visually impaired students that includes the requirements of state and federal laws. Pertinent legal requirements are located in Appendix F.



Publishing Information

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Preface

A major responsibility of the Department of Education is to provide leadership and assistance to administrators, parents, and staff in their efforts to improve educational programs for the visually impaired at the local level. These guidelines have been developed by the Special Education Division of the Department to assist administrators, staff, and parents in improving the identification and assessment of the visually impaired and the planning and provision of instruction and services to these students.

Public education for visually impaired students in California has developed during more than 100 years, beginning with the establishment in 1860 of the California School for the Blind in San Francisco. The first public school program for visually impaired students was established in 1917; and the integration of students into regular school programs began in 1924, with the establishment of resource rooms for the visually impaired in elementary and secondary schools. Historically, California has been recognized as a leader in the education of visually impaired students through the innovative efforts of parents, staff, and administrators. We believe that this document will assist those who are continuing the efforts to meet federal and state legal requirements and to realize the dream of Helen Keller "that every blind child have an opportunity to receive a quality education."

Appreciation is extended for the contributions, advice, and assistance provided by the committee members who helped to prepare these guidelines and to the others who are identified in the acknowledgments. We are also grateful for the suggestions and reactions from those who reviewed early drafts and to Jack Hazekamp, Special Education Consultant, California State Department of Education, who coordinated the development of these guidelines.

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and Director,
Special Education Division*

Acknowledgments

These guidelines were developed with the assistance of an advisory committee representing a broad spectrum of individuals, organizations, and public and private agencies involved in the education of visually impaired students in California. This committee, listed below, provided an important link to the latest developments in this field and to the development of a document that is responsive to the needs of parents, teachers, and administrators.¹

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Bruce Harrell, Chairperson, Joint Action Committee of Organizations Of and Serving the Visually Handicapped

Lois Harrell, Home Counselor, Variety Club Blind Babies Foundation

Rona Harrell, Teacher representing the Southern California Chapter, Association for the Education of the Visually Handicapped

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Jim Siegel, President, Southern California Chapter, California Association of Orientation and Mobility Specialists

¹The titles of the committee members were current as of 1984.

Fred Sinclair, Director, Clearinghouse Depository for Handicapped Students, California State Department of Education, Sacramento

Judy Stotland, Parent and President, California Association for Parents of the Visually Impaired

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Eunice W. Cox, Consultant, Special Education Division, California State Department of Education, Sacramento

Carol Slavic, Member, Commission on Special Education; and Member, San Mateo County Board of Education

This document also reflects the valuable written comments and suggestions from the field and from meetings with parents, consumers, staff, and administrators representing the following agencies and organizations:

Butte County Special Education Local Plan Area (SELPA)

California School for the Blind, Fremont

Fresno Unified School District and county SELPAs

Los Angeles Unified School District and county SELPAs

Marin County SELPA

Monterey County SELPA

Organizations of parents of visually impaired children

Organizations of professionals serving the visually impaired

Organizations of the blind in California

Private agencies serving the visually impaired

San Benito/Santa Cruz SELPA

San Diego City Unified School District and county SELPAs

San Francisco Unified School District SELPA

Sonoma State Hospital

Special Education Administrators for County Offices

Special Education Local Plan Area Administrators Yolo County SELPA

Jack Hazekamp, Special Education Consultant, California State Department of Education, served as the chairperson of the advisory committee and coordinated and supervised the development of this document, with the valuable assistance of other departmental professional and administrative staff, particularly Allan Simmons, Administrator, Consultant Services South, Special Education Division, California State Department of Education. The clerical staff of the Special Education Division and the Word Processing Resources Center are also acknowledged for their efforts in the preparation of this publication.

A special appreciation is extended to Assemblywoman Gwen Moore, who sponsored the legislation requiring the development of guidelines for each low-incidence disability area.

Introduction

This introduction contains a brief description of the purpose of these guidelines and an examination of their scope and use. Also included are a listing of the standards for meeting the unique educational needs of visually impaired students and a description of the information contained in the appendixes.

Purpose of the Guidelines

The guidelines have been developed as a resource for parents, staff, and administrators in assessing, identifying, planning, providing, evaluating, and improving the quality and cost effectiveness of programs serving visually impaired students. These guidelines serve to:

- Clarify the processes for the identification, assessment, planning, and provision of instruction and services to meet the unique educational needs of visually impaired students.
- Provide information that will assist parents, staff, and administrators in evaluating, improving, and maintaining quality programs.
- Provide criteria for the self-review and monitoring of programs serving visually impaired students.

The standards discussed in this publication have been established to serve as a model framework of expectations for the identification, assessment, planning, evaluation, improvement, and provision of instruction and services for visually impaired students. This document contains guidelines to assist local programs in meeting these standards.

Scope of the Guidelines

These guidelines focus on the unique educational needs of visually impaired students. All instruction and services provided to those students must be planned and coordinated to meet their needs. Close cooperation and coordination among all agencies, programs, and individuals assessing and providing instruction and services are the keys to meeting these needs successfully and to improving local programs.

The following need areas are not included within the scope of this document unless they are affected by a student's visual impairment:

- Basic curriculum, courses of study, proficiency standards, and standards of behavior and discipline. (It is expected that the visually impaired student should as much as possible meet the standards and expectations for all students.)
- Needs resulting from an additional disability or disabilities. (These needs are so varied and complex that they should be determined, using a multidisciplinary approach.)
- Other special needs, including those served by these programs: bilingual; Education Consolidation and Improvement Act, (ECIA), Chapter 1; state compensatory education; gifted and talented (GATE); and migrant education. (These special needs are also complex, and they may or may not be affected by a student's visual impairment, depending on the individual student.) Persons needing more information about these programs may wish to contact the Department of Education for technical assistance. (See "Resources for Technical Assistance.")

Use of the Guidelines

This document was designed to be used in three major ways:

First, these guidelines can assist parents, staff members, and administrators to improve their effectiveness in understanding and meeting the needs of visually impaired students. Recommended roles and responsibilities for parents, staff, and students appear in Chapter Four. Recommended roles and responsibilities for administrators are found in Chapter Five. These chapters include references to other sections in this publication that may be particularly helpful to these key individuals.

Second, these guidelines can serve as a tool for improving the effectiveness of programs in meeting the needs of visually impaired students and making maximum use of available resources. A discussion of program improvement, including program review and evaluation, is found in Chapter Five.

Third, these guidelines provide references for information and resources to assist parents, staff members, and administrators to improve both individual and

program effectiveness. The guidelines and the appendixes can be used for:

- Obtaining basic information and suggestions regarding the identification, assessment, and provision of instruction and services to visually impaired students
- Reviewing pertinent legal requirements (Appendix F)
- Identifying sources of funding and materials and equipment (Appendix E)
- Using local, state, and national resources (See "Resources for Technical Assistance.")

Standards for Meeting Unique Educational Needs

Standards for meeting the unique educational needs of visually impaired students are discussed in chapters three, four, and five.

Standards in Chapter Three

In Chapter Three information relating to the following standards is presented:

- A program has procedures for locating and referring students with visual impairments who may require special education, including possible referrals from the vision screening program.
- The assessment of a student with a suspected visual impairment involves, where appropriate, the following areas related to the student's disability: vision/low vision, concept development and academic skills, communication skills, social and emotional skills, sensory/motor skills, orientation and mobility skills, daily living skills, and career and vocational skills.
- The assessment of visually impaired students is conducted by personnel who are knowledgeable about the disability.
- The assessment report identifies the unique educational needs of the student related to the visual impairment, including needs for specialized equipment and materials.
- Those assessing visually impaired students consider the variables that influence individual needs. These include, but are not limited to, variables related to a visually impaired student who:

These guidelines can assist parents, staff members, and administrators to improve their effectiveness.

Has multiple impairments
Is an infant or preschool age
Is at the elementary or secondary level
Has a congenital or adventitious visual impairment
Has a varying degree of visual impairment
Is functionally blind or has low vision
Has other special needs

Standards in Chapter Four

In Chapter Four information relating to the following standards is presented:

- The assessed unique needs of visually impaired students form the foundation for developing the individualized education program (IEP), for providing appropriate specialized instruction and services, for providing materials and equipment, and for developing curriculum in the following areas:

Concept development and academic needs
Communication needs
Social/emotional needs
Sensory/motor needs
Orientation and mobility needs
Daily living skills needs
Career and vocational education needs

- The following key individuals who are involved in the identification, assessment, planning, or provision of instruction, services, or consultation to a visually impaired student understand the student's unique educational needs and possess the skills and abilities to carry out their roles and responsibilities in meeting these needs:

Teacher of the visually impaired
Classroom teacher (regular, special class, or resource specialist)
Orientation and mobility specialist
Parent, guardian, or conservator
Visually impaired student
Eye specialist
Regular or adapted physical education specialist
Physical or occupational therapist
School nurse
Program specialist

Career and vocational education specialist
Language, speech, and hearing specialist
Counselor, psychologist, or social worker
Transcriber
Reader
Aide
Ancillary staff in residential programs

- Coordination exists among all of the individuals involved in providing instruction and services to visually impaired students.

Standards in Chapter Five

In Chapter Five information relating to the following standards is presented:

- Each program for visually impaired students provides for the delivery of appropriate instruction and services through a full range of program options provided, as necessary, on a regional basis.
- Each visually impaired student is appropriately placed in the least restrictive environment, based on his or her educational needs.
- Class size and caseloads of staff allow for providing specialized instruction and services, based on the educational needs of visually impaired students.
- Each program provides qualified staff who have the skills and abilities to conduct assessments and to provide instruction and services that meet the educational needs of visually impaired students.
- Appropriate staff development and parental education are provided, based on a needs assessment that reflects the unique educational needs of the visually impaired student.
- Facilities are designed or modified to enhance the provision of instruction and services to meet the unique educational needs of visually impaired students.
- Materials and equipment necessary to meet the unique educational needs of visually impaired students are provided, as indicated by the individualized education program.
- Transportation for visually impaired students is suitable to the unique health and safety needs of visually impaired students.

- Each program serving visually impaired students has an ongoing process to evaluate its effectiveness and improve the identification, assessment, planning, and provision of instruction and services to meet the unique educational needs of these students.

Content of the Appendixes

Appendixes A through G provide additional information and sources of assistance for the reader.

Appendix A, "Self-review Guide," can assist parents, staff, and administrators in evaluating and improving the effectiveness of local programs in meeting the standards presented in these chapters. The "Self-review Guide" can be used to:

- Conduct an internal or external review of the program.
- Identify areas and establish goals for program improvement.
- Identify possible topics for local evaluation studies.
- Identify needs for technical assistance.

Appendix B, "Assessing Vision/Low Vision," contains information about the range of visual impairments, functional vision assessment, and assessment by a qualified eye specialist. Sample forms in this appendix are "Registration of Visually Handicapped Students, as of January 2, 19—," "Eye Report for Children with Visual Problems," "Preferred Visual

Acuity Notations," "Educationally Oriented Vision Report," and a "Functional Vision Checklist Summary Sheet."

Appendix C contains information about the California School for the Blind in Fremont, including the referral process and residential policy.

Appendix D provides a description of state hospital programs in California. The purpose of the programs, referral procedures, and the residential policy are presented.

Appendix E presents legislative provisions for funding, program options for students with visual impairments, funding sources for low vision assessments and low vision aids, and funding for and sources of materials and equipment.

Appendix F contains pertinent sections from the *Education Code* and *California Administrative Code, Title 5*, that apply to the content of this publication. The purpose of this appendix is to give readers an opportunity to review key legal requirements that relate to the education of visually impaired students.

Appendix G "Resources for Technical Assistance" lists addresses and telephone numbers from the California State Department of Education and other resources in California and nationwide.

The glossary contains definitions for terminology used in educating visually impaired students that may be unfamiliar to some readers of this publication.

Identifying the Unique Educational Needs Related to a Visual Impairment

This chapter contains an examination of the unique educational needs of visually impaired students. This information can be used for assessing a student with a visual impairment (see Chapter Three) as well as for planning and providing instruction and services to meet the assessed needs (see Chapter Four) in the following areas: concept development and academic skills, communication skills, social/emotional skills, sensory/motor skills, orientation and mobility skills, daily living skills, and career and vocational skills. The information about unique educational needs identified in this chapter will provide valuable assistance for the individualized education program (IEP) team as well as for those implementing the IEP.

Concept Development and Academic Needs

Since a visual impairment will often impede the development of students' visual concepts and learning in academic subject areas, special concept development and academic skills, such as listening and study skills, will often be needed.

Concept development and academic needs that should be addressed include:

- Developing a good sense of body image
- Understanding the following concepts: laterality, time, position, direction, size, shape, association, discrimination, sequence, quantity, sensations, emotions, actions, colors (to the best visual ability), matching, and classifying
- Developing listening skills appropriate to the level of the student's functioning, including the development of auditory reception, discrimination, memory, sequencing, closure, and association skills
- Developing auditory comprehension and analysis skills appropriate to the level of the student's functioning, such as the development of the ability to summarize; classify; compare; recognize cause and effect; predict outcomes; visualize; understand character; understand setting; recognize feelings; recognize climax, foreshadowing, and purpose; and distinguish fact from opinion
- Becoming familiar with the format of, and knowing how to use, reference materials in the student's primary reading medium

¹See the Glossary for an explanation of this term.

- Being able to interpret accurately maps, charts, graphs, models, and tables
- Developing skills for notetaking during a lesson
- Developing skills for notetaking from material originally intended for print; e.g., recorded or material read aloud by a reader
- Developing the ability to organize notes and other study materials
- Developing the ability to organize one's time
- Developing the ability to select and use a reader
- Being able to acquire materials in the appropriate reading medium; e.g., braille or large type

Communication Needs

A student with a visual impairment will usually require alternative modes for instruction in reading and writing. He or she will need special skills in using alternative strategies and specialized equipment and materials to communicate effectively.

Communication needs that should be addressed where appropriate include:

- Being skilled in reading, using appropriate modes (braille, print, or recorded form) for such purposes as gaining academic information and pursuing personal and recreational interests
- Developing skill in writing for personal needs, using appropriate modes (braille, print, typewriting, recording and/or handwriting) for such purposes as notetaking, recording phone numbers and addresses, taking messages, and recording travel directions and personal notes
- Being proficient in typing
- Being able to write one's own signature legibly
- Being able to operate basic communication equipment, such as radios, talking book machines, reel-to-reel tape recorders, cassette recorders, and phonographs
- Being cognizant of, and able to use, appropriate special devices for reading and writing, such as slates and styli, prescribed optical aids, closed-circuit television systems, talking computers, reading machines, and other electronic equipment
- Being cognizant of, and able to use, appropriate special devices for mathematics and science,

including the abacus, the talking calculator, paperless brailers, specialized measuring equipment, and the talking computer

Social/Emotional Needs

A visual impairment often affects a student's self-concept, observation of behavior in social situations, involvement in recreational activities, and sexuality. The visually impaired student will, therefore, have special needs for socialization, affective education, recreation, and sex education. These students will also need to learn to deal with the psychological implications of the visual impairment.

Socialization

Socialization needs that should be addressed include:

- Understanding and displaying acceptable social behavior appropriate to a variety of group situations
- Being able to discriminate between those behaviors that are socially unacceptable in public yet acceptable in private
- Understanding and exhibiting appropriate assertiveness techniques in a variety of situations
- Being aware of and using appropriate verbal communication techniques; e.g., voice volume and intonation
- Being aware of and using appropriate nonverbal communication techniques; e.g., gestures, eye contact, raised head, and facial expressions
- Being aware of and being able to control body posture, movement, and physical mannerisms in an acceptable, coordinated manner
- Being aware of and using proper manners in eating and other social situations
- Being able to make introductions properly and demonstrate appropriate conversational skills
- Being prepared to contribute constructively to group activities and social situations
- Being aware of appropriate social distances for various communication situations
- Being aware of dress codes for specific groups and occasions and dressing appropriately for one's age and situation

A student with a visual impairment will usually require alternative modes for instruction in reading and writing.

- Being aware of the stages of the life cycle
- Having knowledge of the reproductive process in a variety of living things
- Being aware of the factors that influence the growth of one's body
- Being aware of the biological and emotional changes that occur in human males and females during puberty
- Understanding that differences occur in the rate of maturity of an individual's body
- Being knowledgeable about appropriate grooming and personal hygiene techniques
- Being able verbally and tactilely, with the use of models, to identify human male and female body parts and organs of the reproductive system, using correct terminology
- Being able to use correct terminology to explain how sexual intercourse and human fertilization occur
- Being aware of the changes in the human female body during pregnancy and the developmental process of the growth of the fetus
- Being aware of the birth process and possible complications
- Being knowledgeable concerning the factors that should be considered during pregnancy to increase chances of delivering a healthy baby
- Being knowledgeable about appropriate child care procedures and adaptations that may be necessary for a visually impaired parent through contact with real infants and children
- Being knowledgeable about available family planning options
- Being aware of the common types of venereal diseases, their symptoms, consequences, and treatments
- Being aware of appropriate dating and social mores to be used with the opposite sex; e.g., flirting or asking someone for a date or to dance
- Being aware of the various types of interpersonal relationships one can have with members of the opposite sex
- Being aware of verbal and nonverbal communications that relay sexual messages to others; e.g., the use of body language

- Being knowledgeable about alternatives available for rape prevention and appropriate safety precautions
- Understanding that there are individuals with different types of sexual preferences
- Being knowledgeable about the genetic factors related to some visual impairments that one should consider before having children and being aware of available genetic counseling
- Being aware of the responsibilities associated with premarital sexual relations, marriage, and parenthood
- Being able to express and discuss any concerns related to one's visual impairment and relations with the opposite sex; e.g., dependency, not being able to drive, financial concerns, and genetic factors

Psychological Implications

How well a student understands and accepts his or her visual impairment can be determined by addressing the needs in this area, including:

- Being able to recognize that one has a visual impairment
- Being knowledgeable about one's own eye condition
- Being able to explain one's eye condition to others
- Understanding the vision process
- Understanding and accepting any physical limitations caused by the visual impairment
- Understanding how low vision aids can assist in improving visual abilities and accepting the use of appropriate low vision aids
- Accepting the use of alternative techniques and apparatuses for obtaining sensory information, where appropriate; e.g., use of braille, tapes, and the long cane
- Being knowledgeable about personal eye care; e.g., medications, hygiene, regular eye exams, and low vision assessments
- Having realistic knowledge of current research in the field of visual impairment

The visually impaired student will need special skills to understand and become oriented to the environment.

Affective Education

Affective education needs that should be addressed include:

- Recognizing that each person is unique and different from every other person
- Understanding that a visually impaired person has all of the same emotions as everyone else
- Being able to identify one's feelings
- Being able to express one's feelings to others directly and in a socially acceptable manner
- Having feelings of self-worth and well-being
- Recognizing one's own strengths and weaknesses in a realistic manner
- Acknowledging both positive and negative feelings in oneself and in others and understanding that both types of feelings are legitimate
- Being able to identify one's likes and dislikes
- Being able to understand and recognize teasing and developing appropriate ways of handling it
- Being aware of alternative ways to respond to the feelings and behavior of others
- Feeling that one is a valuable, contributing member of society
- Being able to identify and understand a wide range of feelings in oneself and in others; e.g., happiness, guilt, frustration, boredom, confusion, anger, embarrassment, and pride
- Being aware that the way a person feels about himself or herself is reflected in the way he or she treats others
- Being aware that each person must establish his or her own set of values and live by them
- Being aware of the concept of peer pressure and determining the appropriateness of conforming to peer pressure
- Being able to identify and share feelings of insecurity about his or her visual impairment in relation to being accepted by one's peers
- Understanding the ways in which one can become victimized by others by allowing them to make choices in one's life
- Understanding the long-range results of too much dependence on others
- Being aware of the connection between being in control of one's life and taking responsibility for what happens to one in life

- Being able to feel comfortable asking for help from others when it is appropriate
- Understanding the difference between allowing others to help when it is not needed and deciding to ask for help when it is needed.

Recreation

Recreational needs that should be addressed include:

- Being familiar with a variety of social and recreational activities
- Being able to participate in a variety of different recreational activities with a group and on an individual basis
- Realizing that many options are involved in deciding how to spend one's leisure time
- Learning to play indoor and outdoor games appropriately; e.g., ball, cards, and roller skating
- Developing hobbies of individual interest; e.g., arts, crafts, music, or collections
- Being competent in several different recreational activities
- Learning about popular spectator activities to enjoy attending them and to be able to discuss these topics appropriately
- Being aware of opportunities for participation in recreational activities in the neighborhood and in the community in addition to those designed specifically for the visually impaired; e.g., YMCA or YWCA, neighborhood parks and centers, scouting, and school clubs
- Being aware of current recreational trends and being able to participate where appropriate; e.g., current dance steps or fad games

Sex Education

Sex education needs that should be addressed include:

- Being able to identify with his or her own gender and to be accepting of it
- Recognizing that each human is a sexual entity and has certain characteristics associated with gender
- Identifying sexual roles in our society
- Understanding what constitutes a family and the various roles of family members

Sensory/Motor Needs

A visual impairment may affect one's gross and fine motor skills; alternative sensory discrimination and sensory integration skills; and abilities to develop appropriate posture, balance, strength, and movement. The visually impaired student may need to develop special skills in these areas.

Sensory/motor needs that should be addressed include the following:

- Learning to control the head, limbs, and body for purposeful exploration and movement
- Learning to sit, crawl, stand, and walk independently.
- Learning to control the head and body while sitting, crawling, standing, and walking, exhibiting appropriate gait, stride, and mannerisms
- Developing the ability to balance while standing still and while in motion
- Using gross motor skills, such as crawling, walking, exploration for objects, negotiating stairs, negotiating depth changes, opening and closing doors, and pushing and pulling objects
- Developing fine motor skills, such as grasping and releasing objects, turning door handles, grasping a cane, and dialing a phone
- Developing sufficient muscle relaxation and flexibility to perform basic daily living and mobility skills safely, efficiently, and gracefully
- Developing sufficient strength, stamina, and endurance to complete necessary mobility, physical education, and daily living skills tasks within the daily routine
- Learning to identify, discriminate, and use various textures and objects tactilely and underfoot
- Learning to identify, discriminate, track, and use continuous and intermittent auditory sources indoors and outdoors
- Learning to identify, discriminate, and use various kinesthetic and proprioceptive sources indoors and outdoors, such as changes in temperature, movement of air currents, or height of slopes and depth changes
- Learning to identify, discriminate, and use various olfactory sources indoors and outdoors

Orientation and Mobility Needs

A visual impairment usually affects how the student learns about and functions within the environment. The visually impaired student, therefore, will need special skills to understand and become oriented to the environment and to move, travel, and play independently and safely within the environment.

Orientation and mobility needs that should be addressed include the following:

- Developing a conceptual understanding of:
 - Body image; e.g., planes, parts, laterality, and directionality in relation to objects and environmental features
 - Concrete environmental concepts; e.g., grass, lawn, cement, wood, carpet, tile, tree, bush, and street
 - Spatial concepts; e.g., far, near, close, high, low, above, below, facing, in front of, behind, beside, away from, next to, forward, backward, sideways, and 90, 180, and 360 degree turns
 - Compass direction concepts; e.g., north, south, east, and west relationships, sides of streets, names of corners, and relationships among changes in direction
 - Traffic and traffic control concepts; e.g., fast, slow, parallel, perpendicular, same direction, opposite direction, near side, and far side
- Learning to crawl, stand, and walk independently
- Learning to identify, discriminate, and track increasingly complex auditory, tactile, kinesthetic, or olfactory cues
- Learning to travel independently at home and at various school settings throughout one's school career
- Learning to control one's head and body to exhibit a comfortable and appropriate gait and stride
- Learning to control the head and body to exhibit appropriate physical mannerisms while standing still, in motion, and sitting
- Learning appropriate trailing and protective techniques and techniques for locating objects to

The visually impaired student will often need special techniques to function as independently as possible.

facilitate independent orientation and mobility at home and school

- Learning to use appropriate sighted guide skills in all travel situations when needed, such as traveling in normal situations; going through narrow passages; being on ascending and descending stairways, on escalators, on elevators, and outdoors; switching sides; seating oneself in chairs, in sofas, and at tables; and establishing and maintaining control of the sighted guide situation with familiar and unfamiliar guides
- Learning to use residual vision and distance low vision aids, as appropriate, to the maximum extent possible for independent, safe orientation and mobility
- Learning to use the long cane appropriately to supplement or replace visual travel skills (Skills to be acquired are basic grasp and hand and arm position; touch technique; use of the cane at closed doorways and stairs and in congested areas and in social situations; trailing techniques; and modified touch technique for location of drop-offs; e.g., curbs or down staircases.)
- Developing a maturity level sufficient for understanding the importance, dangers, responsibilities, and behavior appropriate for independent travel in increasingly sophisticated settings
- Learning to become oriented and travel independently in residential and rural areas (Examples of skills are traveling along a residential sidewalk; traveling past driveways and walkways; locating curbs and wheelchair ramps; recovering from veering; crossing residential streets; recognizing and recovering from a change in direction street crossings; using environmental tactile, auditory, kinesthetic, or olfactory cues, compass directions, maps, and spatial relationships for orientation and safe mobility in familiar rural or residential areas; and becoming independently oriented to an unfamiliar area.)
- Developing an understanding of the services various business establishments provide; for example, grocery stores, department stores, post offices, and shopping malls
- Learning the skills necessary to become oriented and to travel independently in light and major metropolitan business areas:
 - Using traffic sounds to establish, maintain, or regain orientation and line of travel
 - Traveling safely and appropriately on increasingly busy business area sidewalks
 - Crossing independently intersections of four lanes or more controlled by traffic lights
 - Exhibiting appropriate verbal and physical public behaviors
 - Developing the ability to seek out and interact appropriately with the public for assistance in orientation or mobility as needed
 - Learning to use community address systems as an aid to orientation
 - Carrying identification and emergency funds when traveling
 - Knowing whom to contact in case of emergency or disorientation
 - Knowing how to locate and use a pay phone (dial or push-button)
 - Learning to locate independently various destinations in business areas
 - Learning to travel safely in various retail and service establishments, including independent travel on escalators and elevators
 - Learning to carry out increasingly complex personal business transactions independently
 - Understanding and being able to use public transit systems
 - Learning to acquire information regarding products, services, or location of various stores and businesses by using the telephone, including storage of this information for later referral
 - Being able to recognize and safely travel past areas of road construction
 - Being able to negotiate railroad track crossings independently
 - Being able to travel independently within light or major metropolitan business areas at a level sufficient to carry out tasks necessary for basic survival

- Developing, if nonverbal, a feasible communication system for acquiring information and communicating needs
- Learning to use adaptive mobility aids, if necessary, such as wheelchairs, walkers, braces, orthopedic canes, and so forth to provide for the maximum amount of independent mobility possible
- Learning to travel, if necessary, specific routes in limited areas to care for basic needs as independently as possible

Daily Living Skills Needs

Since a visual impairment affects the student's ability to live independently, the visually impaired student will often need special techniques to function as independently as possible. Assessment and instruction to provide needed daily living skills should include those needs as follows:

Performing personal hygiene skills:

- Performing basic personal hygiene tasks; e.g., toileting, care of teeth and hair, and bathing needs
- Using personal service businesses to care for one's own needs and make appointments; e.g., barber or beauty shop (These activities are for students who are beyond the basic skill level.)

Performing dressing skills:

- Dressing and undressing, including tying shoes and fastening buttons and zippers
- Selecting appropriate clothing and planning clothing purchases

Caring for one's own clothing:

- Using techniques for clothing storage and identification of colors and patterns and sorting laundry and using a washer and dryer
- Using services such as shoe repair, performing minor repairs on clothing, and hemming and ironing clothing

Practicing housekeeping skills:

- Locating and using housekeeping areas in the home, such as the kitchen, dining area, and bedroom; and assisting in basic upkeep, such as putting out trash and setting the table

- Performing many basic housekeeping tasks, such as vacuuming and scheduling regular maintenance
- Being able to make basic home repairs

Preparing food:

- Identifying kitchen appliances and performing basic pouring, stirring, measuring, and spreading techniques
- Using kitchen equipment, such as a stove and oven, preparing and cooking menus, following recipes, and preparing complete meals

Practicing eating skills:

- Locating food on the plate
- Using utensils properly; being familiar with passing food, serving oneself at buffets, and using cafeterias; ordering food from restaurant menus; and understanding tipping

Managing money:

- Identifying and knowing coin equivalents
- Handling money in public, planning a budget, using checking and savings accounts, and having one's own system for money management

Practicing social communication skills:

- Conducting basic social interactions, including communicating needs
- Conversing appropriately with familiar persons and strangers

Practicing skills in telephone usage:

- Identifying one's own telephone number and placing an emergency call
- Using directory assistance, using the telephone for personal and business calls, arranging for one's own telephone service, and displaying good telephone etiquette

Practicing written communication skills:

- Understanding that written communication is used to convey information and ideas
- Using a signature, writing personal and business letters, using a system for recording information, and using basic office supplies correctly

Understanding of changes in time:

- Responding to a daily schedule; knowing events that occur during the daytime versus nighttime

- Knowing how to tell time and using clocks and watches, knowing automatic time (weeks or months), scheduling one's own time, and keeping appointments

Being able to organize:

- Organizing systematically time, activities, and personal belongings

Career and Vocational Needs

To be successfully employed, the visually impaired student will often need guidance in selecting an appropriate career. Assessment and instruction in career awareness and special vocational education skills, including adaptive skills, will often be needed for an individual to be successful in that career.

Some career and vocational needs that should be addressed include:

- Understanding oneself in terms of the characteristics and attributes that make up one's individuality and recognizing one's uniqueness as a person with a visual impairment
- Understanding that a variety of life-styles is acceptable
- Knowing the difference between work and play and when each is appropriate
- Relating present experiences to future jobs
- Being familiar with jobs held by one's family members and the jobs available in the school and the community, particularly jobs held by visually impaired persons

- Being able to fill out a job application or giving the necessary information to another person
- Being familiar with the development and use of a resume
- Knowing basic employability skills, including getting to work on time
- Knowing that money is a medium of exchange and related to work and developing concepts of financial management
- Developing competencies in the decision-making process
- Knowing and using personal information skills, including a legal signature
- Understanding the importance of doing a job to the best of one's ability, of becoming employed to increase one's self-esteem, and of interacting appropriately with the supervisor
- Maximizing one's capabilities in manual skills, including basic tool subjects, with the goal of using the hands to explore and control the environment
- Experiencing hands-on work experiences through chores, paid jobs on or off campus or after school (particularly in the private sector), or in simulated work environments
- Participating in skill training at a job-entry level in a variety of experiences to assist in determining realistic occupational choices
- Being able to serve as one's own advocate in obtaining necessary services, adaptations, and equipment needed for success on a job, during job training, or in college

Assessing Unique Educational Needs

This chapter contains information about the eligibility of visually impaired students for special education and a discussion of the identification of these students and an assessment of their unique educational needs. Descriptions of the requirements for assessment personnel and of the variables that affect the unique educational needs of the visually impaired also appear.

Eligibility for Special Education

To be eligible for special education, "a pupil has a visual impairment which, even with correction, adversely affects a pupil's educational performance."¹ When an assessment of a student with a visual impairment determines that he or she has educational needs that cannot be met without special education and related services, this student is provided with instruction, specialized services and materials and equipment in accordance with his or her individualized education program (IEP). (See Appendix F for legal requirements.)

The term *visually impaired* includes, for educational purposes:

- Functionally blind students (who rely basically on senses other than vision as their major channels for learning)
- Low vision students (who use vision as a major channel for learning)

A visual impairment does not include visual perceptual or visual motor dysfunction resulting solely from a learning disability. (See Appendix F for legal requirements.)

Identification of Visually Impaired Students

How does the program ensure that students with visual impairments who may require special education are referred, including referrals from the vision screening program?

Identifying a student's visual problems at an early age is important. Local procedures to find these students should include search activities, such as the following, to locate and refer individuals suspected of having a visual impairment:

¹California Administrative Code, Title 5, Education, Section 3030(d). (See Appendix F.)

- Coordination with the vision screening program (See “Resources for Technical Assistance.”)
- Activities to make staff members and parents aware of signs that may indicate a student’s visual impairment
- Coordination with local eye specialists and other possible referral sources

Assessment of Visually Impaired Students

How does the program ensure that students with suspected visual impairments are assessed, when appropriate, in the areas related to their disability?

To identify all the unique educational needs of a student resulting from his or her visual impairment, those conducting the assessment must be sure that the initial comprehensive and ongoing assessments address, where appropriate, the areas that are included in Chapter Two. (See Appendix F for legal requirements and Appendix B for information that will be helpful in assessing a student’s vision/low vision.)

The paragraphs that follow present a discussion of the assessment of visually impaired students.

Reports on Vision

The assessment should begin with the report of an examination by an ophthalmologist or optometrist. It is important to acquire as much information from the eye specialist as possible. This information would be reported in the “Eye Report for Children with Visual Problems” or in the “Educationally Oriented Vision Report.” Sample copies of both of these forms can be found in Appendix B.

The eye report should include:

- Near and distant acuity, with and without best possible correction
- Field of vision, including peripheral field
- The etiology and prognosis of the visual impairment
- The eye specialist’s recommendations for school personnel and parents, including when the student should be reexamined

For severely multiply impaired students whose vision may be difficult for an eye specialist to assess, information may be obtained from the eye specialist, from

the student’s pediatrician, or from other attending medical staff. Additional information could be obtained through electrodiagnostic testing (e.g., visually evoked response testing) and a functional vision assessment.

The “Eye Report for Children with Visual Problems” is also used as the basis for registering visually impaired students annually with the State Department of Education’s Clearinghouse Depository for Handicapped Students. This registration provides for the use of materials, aids, and equipment produced by the American Printing House for the Blind. (See Appendix E.)

Low Vision

For visually impaired students with residual vision, a low vision assessment is provided in accordance with the guidelines that are discussed in the paragraphs that follow (see Appendix F for legal requirements):

In the first step, a functional vision assessment is conducted by the teacher of the visually impaired, in coordination with the orientation and mobility specialist, to determine the student’s functional vision. (Appendix B contains more detailed information and a sample report form.) Parents can also provide valuable information on how the student uses his or her vision.

The purposes of the functional vision assessment are to:

1. Determine what the visually impaired student sees functionally in a variety of educational situations.
2. Indicate modifications required for visual efficiency, such as:
 - a. Task modifications, including time requirements
 - b. Specialized instructional materials and equipment
 - c. Desired seating, lighting, and physical arrangements
3. Facilitate further assessment by an eye specialist, when necessary.
4. Complement the needed interdisciplinary exchange of information between educators and eye specialists.

Good communication skills are essential for a student to become successfully integrated into the school setting and later into society.

In the second step, recommendations from the functional vision assessment report are made to the assessment team or IEP team regarding the possible need for further assessment by a licensed optometrist or ophthalmologist who has training and expertise in low vision and who has available appropriate low vision aids and assessment equipment. (Appendix B contains more detailed information.)

When the assessment of a student with residual vision is to be discussed, the assessment or IEP team, or both, should include the individuals who conducted the functional vision assessment. When a recommendation is made for further low vision assessment, the assessment or IEP team, or both, should include an individual knowledgeable about prescriptive low vision aids and additional low vision assessment. The information from the low vision assessment will be extremely useful in determining the needs of students in other areas related to the visual impairment.

Concept Development and Academic Skills

Although assessment and instruction in the academic subject areas are the major responsibilities of the classroom teacher, the visually impaired students should be thoroughly assessed by the teacher of the visually impaired, in coordination with the classroom teacher, in academic areas, such as mathematics, reading, and language arts (particularly spelling). Such assessments will not only provide valuable information about the level on which the student is performing academically but will also provide the teacher of the visually impaired with an opportunity to observe how the student functions visually or tactually in academic tasks. When an assessment indicates that a student's errors are the result of unique educational needs related to the visual impairment, intervention by the teacher of the visually impaired may be necessary.

Vision is the major channel through which students perceive their environment and the relationship of themselves and objects within it. Functionally blind and low vision students, therefore, often require appropriate instruction in concept development to progress from understanding concrete and functional levels of information to comprehending abstract levels

of instruction. Assessment should, therefore, include the students' understanding of basic concepts:

- Spatial
- Temporal
- Quantitative
- Positional
- Directional
- Sequential

Because visually impaired students must rely on their auditory sense for learning to a greater degree than do their sighted peers, an assessment of the students' listening skills should also be conducted, including the students' auditory perception, comprehension, and skills of analysis

Study skills should also be assessed, such as:

- Using reference books and materials
- Interpreting maps, charts, graphs, and models
- Taking notes from both written materials and oral presentations
- Keeping one's place
- Tracking
- Comprehending the "whole," based on observations of the "parts"

Communication Skills

Good communication skills are essential for a student to become successfully integrated into the school setting and later into society. The assessment of communication skills for the visually impaired student should begin with an evaluation of the reading (braille, large print, print, or aural) and writing (braille, print, cursive, or aural) modes being used by the student. The teacher of the visually impaired, with suggestions from the student when possible, should determine whether these modes are the most appropriate for the student at that particular time or whether other (or additional) ones should be introduced.

Once the student's reading and writing modes have been determined, the efficiency and accuracy with which the student performs these tasks should be assessed to determine whether further instruction is necessary to improve his or her technique, speed, or accuracy in these areas.

Throughout the assessment process, the teacher of visually impaired students needs to be involved in identifying areas that should be addressed.

In addition, the following areas should be assessed where appropriate:

- Typing
- Signature and cursive writing
- Familiarity with basic communication equipment; e.g., talking book machines, tape recorders, reading machines, and radios
- The use of computers
- The use of optical aids
- Closed circuit television systems
- Slate and stylus
- Abacus
- Talking calculator
- Other equipment specially designed or modified for visually impaired students

Social and Emotional Skills

The assessment of social and emotional skills for the visually impaired student encompasses socialization skills, affective education, recreation, human sexuality, and the psychological implication of the visual impairment. Various formal and informal assessment methodologies exist that the teacher of the visually impaired is familiar with and that are used to assess the skill levels in each of these areas. The development of positive social and emotional skills is essential for students to function independently at home, at school, and as adults and to be effective in vocational and interpersonal relationships.

Sensory/Motor Skills

The development of sensory/motor skills is essential if students are to benefit from instruction in orientation and mobility, daily living skills, prevocational and vocational skills, and physical education.

Various formal and informal assessment methodologies exist with which the teacher of the visually handicapped and the orientation and mobility specialist are familiar.

Orientation and Mobility Skills

The development of orientation and mobility skills is essential if the visually impaired student is to travel independently in various community settings. The needs of visually impaired students in this area are unique because vision loss requires these students to

learn about their environment in a way that differs from a sighted student's. An assessment should address how the visual impairment affects the student's:

- Understanding of the physical environment and space
- Becoming oriented to different school and community environments
- Being able to travel in school and community environments
- Finding opportunities for unrestricted independent movement and play

Daily Living Skills

If students are to function independently at home and at school and as adults, the development of daily living skills is essential. An individual's ability to become independent will vary. The needs of each student must be assessed and instruction provided so that he or she has the opportunity to learn as many independent living skills as possible.

Assessment of daily living skills often requires a careful task analysis of the skill being evaluated, since prerequisite learning may not have occurred. In addition, a student's level of ability in the assessed skill should be precisely specified in terms of the level of assistance the student needs to complete the skill.

Career and Vocational Skills

Since employment should be viewed as an essential goal for each visually impaired student and the development of concepts in this area begins in early childhood, assessment and training must begin early and progress through four sequential stages: awareness, exploration, preparation, and participation.

Assessing and addressing the needs in all of the other areas related to this disability are important, since these needs directly relate to the student's ability to make a successful transition from school to the world of work.

Assessment of career and vocational education programs should include prevocational skills (including work habits, attitudes, and motivation), vocational interests, and vocational skills. Assessment of needs and training to meet these needs will be aimed at achieving skills necessary for a range of employment possibilities.

Assessment Personnel

How does the program ensure that assessment personnel are knowledgeable about visual impairment?

To be knowledgeable about the disability of visual impairment, the persons conducting the assessment must:

- Have the necessary training and materials to assess cognitive, affective, social, and motor abilities of the visually impaired student.
- Be familiar with tests adapted for the visually impaired.
- Be aware of the availability of large-print and braille assessment materials.

Communication among persons conducting the assessment, including comments from the teacher of the visually impaired and recommendations from the parent and student, should precede the assessment in order to establish the most effective method of non-discriminatory testing. Throughout the assessment process, the teacher of visually impaired students needs to be involved in identifying areas that should be addressed, including, but not limited to:

- Use of nondiscriminatory assessment instruments, as required by state and federal law
- Need for additional testing time
- Visual performance of the student
- Low vision aids, if needed
- Previous assessment
- Lighting requirements
- Print and picture size appropriate for the student
- Best positioning of materials
- Other assessment strategies
- Motivation of students
- Other special needs; for example, those of bilingual students

Assessments must be administered by qualified individuals so that the desired data and educationally relevant information are obtained. Assessment instruments that require more highly technical skills, such as tests of cognitive development, should be administered by a qualified school psychologist. This person should be a valuable source of information. Teachers can use informal assessment tools and administer,

score, and interpret many of these instruments, provided that the manual of directions is understood and carefully followed. The teacher of the visually impaired should be a valuable resource person. (See the section entitled "Resources for Technical Assistance" and Appendix F for legal requirements.)

Assessment Report

How does the program develop assessment reports that identify a student's unique educational needs related to the visual impairment, including needs for specialized equipment and materials?

The unique educational needs of each visually impaired student that have been identified in the assessment, including needs for materials and equipment, shall be included in the assessment report with other requirements. (See Appendix F for legal requirements.)

Assessment reports can assist in coordinating all of the assessment conducted by the multidisciplinary team. The unique educational needs, as well as the strengths identified in the reports, will provide valuable information, which should be used to develop or review a student's IEP.

Variables Affecting Educational Needs

How does the program's staff consider the variables that affect students' unique educational needs when visually impaired students are being assessed?

When assessing the unique educational needs for each student and providing instruction and services, one must consider the variables that influence individual needs. These include, but are not limited to, variables related to a visually impaired student who:

- Has a congenital or adventitious visual impairment
- Has multiple impairments
- Is an infant or a preschool child
- Is at the elementary or secondary level
- Has a varying degree of visual impairment
- Is functionally blind or has low vision
- Has other special needs

Congenital or Adventitious Visual Impairment

The terms *congenital* and *adventitious* identify the time of onset of a visual impairment. A congenitally visually impaired student has had a visual impairment since birth and generally has difficulty with concepts and skills that are visual in nature. An adventitiously visually impaired student has a visual impairment that was acquired after birth and generally already has some visual concepts and skills, depending on the age of the child when the onset of the visual impairment occurred. This student may need to integrate and acquire new visual concepts and may have needs relating to his or her adjustment to the visual impairment.

Students with Multiple Impairments

The unique educational needs of visually impaired students with one or more additional impairments are diverse and complex. Those serving students with complex needs resulting from multiple impairments should:

- Use a multidisciplinary team approach in assessing and providing instruction and services to meet these needs.
- Coordinate assessment, as well as instruction and services, through ongoing communication among all other personnel serving the student, to ensure that all needs are met.

Infants and Preschool Children

Visually impaired infants and preschool children have differentiated educational needs. Until these individuals have developed complex mental processing abilities, a difficult task without vision, they are surrounded by sounds, smells, and sensory perceptions that have little or no meaning to them.

Opportunities for learning, such as associations among sounds, shapes, and objects and their purposes—a process that often occurs incidentally with sighted children—must be directly provided. Because research shows that the first five years of a child's life are the most important for developing a foundation for learning, special emphasis must be given to the infant and preschool child whose opportunities to learn through visual observation are limited or non-existent.

Assessment should include, but not be limited to:

- Potential for delays in development and learning because of limited experiential opportunities in the following areas:
 - Sensory/motor development
 - Communication skills development
 - Cognitive development
 - Daily living skills development
 - Social/emotional development, including the development of self-concept and self-esteem
- Acceptance of the family as the primary provider of experiential and learning activities
- Opportunities for family members to learn, from qualified personnel, the manner in which they can assist their child's learning
- Provision for the integration of concepts and the ability to generalize
- Provision, through early and appropriate introduction to educational processes, for a smooth transition from preschool services to elementary school services

Elementary and Secondary Students

Elementary or secondary students need preparation for becoming as independent as possible, so that they may have access to the core curriculum. This section contains a discussion of how these students' needs can be met to accomplish this goal.

Elementary students. Students in an elementary program may have needs described in the previous section, "Infants and Preschool Children," particularly if these students have developmental delays or have not received needed instruction and services at the infant or preschool level. Elementary students should be provided intensive instruction in basic skills that they need to function independently in the regular classroom. Often, these students should be placed in a resource room for the visually impaired, particularly in the primary grades, to receive such instruction. (See Chapter Five for a discussion of placement in the least restrictive environment.)

Elementary students should receive instruction and services that will prepare them for the secondary level, including career education and prevocational skills,

Elementary and secondary students need preparation for becoming as independent as possible, so that they may have access to the core curriculum.

addressing courses of study, and meeting proficiency standards. These students also need instruction in accepting responsibility for their educational needs.

Secondary students. Students in a secondary program should be encouraged to become increasingly responsible for their educational needs, including obtaining necessary adapted classroom materials and equipment and selecting and using readers. These students should receive instruction and services that focus on skills that will enable them to function independently as adults, particularly in career and vocational education skills.

Secondary students should, to the extent possible, meet the requirements of the prescribed course of study and the proficiency standards for graduation. When appropriate, these students should use alternative means (such as more time) or modes (such as large type or braille) to meet the proficiency standards or differential standards, or both, as determined by the individualized education program team.

The Nature of the Visual Impairment

A student's unique educational needs will be influenced by the cause of or type of vision loss as well as by the student's age when the onset of the visual impairment occurred.

- A student's visual status may be stable, fluctuating, slowly or rapidly deteriorating, or capable of improvement.
- A student's visual impairment may range from a mild, moderate, or severe impairment to functionally blind. (See Appendix B for a discussion of the kinds of visual impairments.)

Functionally Blind and Low Vision Students

Functionally blind students will have needs related to using their other senses as primary channels for learning. Braille reading and writing are particularly important. Students should not rely solely on their minimal vision when it is not efficient or effective for reading or writing.

Low vision students will have needs related to using their residual vision as a primary channel for learning. The low vision assessment information will be particularly useful in identifying and meeting these needs.

Students with Other Special Needs

Some students will have other special needs that those conducting assessments of these students should consider. Examples of students with other special needs are those who are bilingual, gifted, educationally disadvantaged, at risk because of specialized health care needs, or living in threatened home environments or who are members of migrant families. Those making assessments of students with other special needs must work closely with staff from programs and agencies providing services to meet these needs. (See "Resources for Technical Assistance.") For example, when a bilingual visually impaired student is being assessed, the following should be considered:

- Obtaining and preparing materials in the appropriate language and medium
- Providing an interpreter when the teacher of the visually impaired or the orientation and mobility specialist is not bilingual

Planning and Providing Instruction and Services

This chapter presents a discussion on the unique educational needs of visually impaired students, the roles and responsibilities of key individuals in meeting these needs, and the coordination of instruction and services to meet these needs.

Unique Educational Needs

How does the program use the assessed unique educational needs of visually impaired students to form the foundation for the following?

- Developing the IEP, which includes, when appropriate, specialized services and materials and equipment (See Appendix F for legal requirements.)
- Providing appropriate instruction and services and materials and equipment
- Developing curriculum and implementation strategies to meet these needs

Concept Development and Academic Needs

For most visually impaired students, it is expected that information in the core curriculum areas will be obtained as a part of instruction in the classroom. The classroom teacher should work closely with both the visually impaired student and the teacher of the visually impaired so that concepts that may be unfamiliar (e.g., contractions of words in reading, braille mathematics, and columns) or visual demonstrations (e.g., science experiments and examples on the chalkboard) do not slow the integrated student's progress and ability to keep up with the rest of the class. If the visually impaired student also has a learning handicap, the resources of a specialist in that area should also be used so that the student may perform to the maximum limits of his or her ability.

Three areas in which a visually impaired student may require specialized instruction are concept development, listening skills, and study skills. A discussion of these three areas follows:

Concept development. The development of concepts in sighted children is based almost entirely on their visual observations of the world (identification of objects, their relationship to objects in their environment, and their concepts of the relationships among objects). Unless these relationships are specifically taught, they cannot be totally understood by

students whose visual perceptions are distorted. A comprehensive, sequential program of concept development is necessary for most visually impaired children before they can be expected to develop abstract thinking skills.

Listening skills. Functionally blind and low vision individuals do not automatically develop better listening skills; these must be systematically taught and practiced. The development of good listening skills does not stop with work in auditory perception skills but extends to the development of auditory comprehension, analysis, and memory skills. Good listening skills will be needed by the student to interpret the environment when:

- The student works in the regular classroom.
- Books are read to the student (by a reader or on tape).
- An older student tries to retain the maximum amount of information from lectures.

Study skills. The study techniques used by visually impaired students are so different from those used by sighted students that study skills should be taught by a specialized teacher of the visually impaired. The various formats used in reference works, such as dictionaries, encyclopedias, and atlases, coupled with the difficulty of tracking and keeping one's place in these books, demand that special attention be given to the development of these skills.

Reading and interpreting maps, charts, and graphs also require special techniques, whether the material is in braille or large print or is being read using an optical aid. Also, visually impaired students need to develop methods to take notes while listening or reading and to organize notes and other materials in a media that they can use and to develop the skills that are needed to acquire and use a reader.

Communication Instruction

Without communication skills individuals cannot be fully independent and, therefore, must rely on others to assist them at home, at school, at work, and in society. For the visually impaired individual, dealing with information in a written form is particularly difficult. Unique problems arise both in the reception of printed material (reading) and in the written transmis-

sion of one's thoughts and opinions (writing). Many visually impaired students will need special instruction in one or both of these areas to develop proficiency in communication.

Depending on the visual functioning of the student, special instruction in braille, large print, or regular print reading techniques may be necessary. Reading techniques are not acquired for sighted and visually impaired individuals in the same manner.

For written communication, depending on the student's visual functioning, use of a braillewriter, slate and stylus, pen and pencil, or typewriter should be taught.

Social/Emotional Instruction

The needs of visually impaired students in this area are unique because of the effects loss of vision may have on the formation of one's self-concept, opportunities for appropriate modeling in social situations, involvement in recreational activities, development of concepts about human sexuality, and understanding and awareness of the visual impairment.

Needed skills and understanding in these areas should be addressed to aid visually impaired students in developing the appropriate social and emotional skills necessary to function independently at home and in school and as adults in vocational, interpersonal, and family relationships.

Socialization. Visually impaired students often have needs in demonstrating appropriate social skills. The majority of a sighted person's social skills are learned from visual modeling. An appropriate behavior or mannerism is observed and then is copied in a similar situation. Many acceptable social behaviors go unnoticed by visually impaired students unless they are taught to them with an appropriate demonstration of how and an explanation of when and why one would use such a behavior.

The area of nonverbal communication is often inaccessible to the visually impaired student. Nonverbal methods of communication are often critical avenues of social interaction for the sighted and must be directly addressed if the visually impaired students are to incorporate them into their repertoire of social skills.

The emotional needs of visually impaired students must be addressed so that these needs do not interfere with these students' academic, social, and vocational growth.

Affective education. The emotional needs of visually impaired students must be addressed through affective education so that these needs do not interfere with these students' academic, social, and vocational growth. One of the most crucial emotional developmental tasks for visually impaired students is the formation of self-concept. Research has shown that visually impaired children and adolescents have a lower self-concept than do their sighted peers.

Visually impaired infants and young children often have difficulties in recognizing themselves as individuals apart from other individuals and objects in the environment, because vision plays such a crucial role in this process. The lack of feedback from a mirror, which assists sighted students in learning how they appear to others, further hinders the development of a healthy self-concept in visually impaired students.

As the visually impaired students become older, they may perceive themselves as devalued or incapable persons because of their inability to perform many of the common tasks required in school or on the playground. Another common occurrence is the overemphasis of certain strengths, resulting in an unrealistic self-concept, which may later be deflated in adolescence or adulthood. Visually impaired students often encounter teasing by peers and must learn to handle these situations constructively while maintaining a good self-concept.

As visually impaired students reach adolescence, many emotional issues arise, such as dealing with learned helplessness, dependency, overprotective families, and sexuality.

The emotional needs of visually impaired students must be addressed so that these needs do not interfere with these students' academic, social, and vocational growth.

Recreation. Visually impaired students are often limited in the range of recreational and leisure-time skills available to them, including extracurricular activities. A need exists to expose these students to a variety of available options, which they either may not be aware of or in which they may not feel sufficiently competent to participate.

The sighted person becomes aware of many recreational activities through visual media sources. Many specific leisure skills are learned from visual model-

ing. In addition, students may be limited because of a lack of mobility skills, and they cannot always independently explore neighborhood options. Both individual and group recreational activities must be included in the development of recreational and leisure skills, including art and music.

Human sexuality. Visually impaired students need a much more intensive and conceptually oriented sex education program than their sighted peers do because of the lack of conceptual understanding and accurate information that cannot be gained through the visual media sources available to sighted students. Many times visually impaired students can verbalize sexual concepts and information accurately, but further inquiry reveals that these students have many misconceptions.

The use of tactile models is an important part of the sex education program for visually impaired students because visual media are not useful in the learning process. Dealing with the attitudes and emotions surrounding these students' sexuality at various stages of growth is important. The confusion that often exists regarding the stigmas attached to the disability and sexuality of the visually impaired can seriously affect these students' self-concepts.

The local sex education program must be adapted for the visually impaired to deal with gender identity, reproduction processes, sexual and social issues, and health and safety precautions—all in relation to each student's visual impairment and moral code. Before providing sex education, one should follow both the IEP and local policies and procedures.

Understanding and acceptance of the visual impairment. Many of the psychological problems faced by visually impaired students stem from the lack of understanding and acceptance of their individual eye condition. Many students cannot discuss their eye problem when others inquire. Visually impaired students are often uncomfortable discussing their vision problem, since such a discussion forces them to acknowledge that they do, in fact, have a visual impairment. These students need to understand and embrace fully their visual impairment as part of their identity so that a healthy adjustment results and so that they are able to deal with the stereotypes and prejudice

often encountered in our society. If the students are knowledgeable, comfortable, and accepting of their visual impairment, then the chances of creating a similar comfortable and accepting attitude in others will be increased.

Sensory/Motor Instruction

From an early age sighted children are able to use vision, imitation, and opportunities for unrestricted exploration, movement, and play to develop necessary fundamental skills in the following areas: gross and fine motor coordination, relaxation of muscles, strength, endurance, flexibility, and balance. Sighted children also are better able to develop their tactile, auditory, proprioceptive, and kinesthetic sense discrimination and integration. The lack of visual, imitative, and normal play opportunities may hinder the ability of visually impaired students to develop these fundamental skills through the natural process of development and maturation or as a result of regular physical education activities.

Instruction in development or remediation of identified needs in this area should be provided, as needed, by a team of instructional personnel that may include the following: classroom teacher, special class teacher, teacher of the visually impaired, physical education teacher, adapted physical education specialist, orientation and mobility specialist, occupational therapist, and physical therapist.

Sensory/motor development needs overlap with several other areas of need. In some cases certain skills and abilities are prerequisite to the development of more sophisticated skills in other areas, particularly orientation and mobility, daily living skills, and career and vocational education.

Orientation and Mobility Instruction

The ability to understand, interact with, and move within one's physical and spatial environment is a fundamental developmental skill. This ability is one of the milestones indicative of maturation of sighted students and should be so viewed for visually impaired students.

A visual impairment may affect an individual's opportunities for unrestricted, independent exploration, movement, and play; understanding of the phys-

ical environment and space; ability to become oriented to and to travel in various community environments; and ability to acquire basic daily living and social skills necessary for interaction with sighted individuals and for travel within the school and the community. A visual impairment may also result in voluntary or imposed restrictions on a person's activity occurring simply because of the presence of visual impairment and associated misconceptions concerning the ability of students to develop independent movement capabilities.

Specific instruction and services will be necessary to meet assessed needs in:

- Environmental and spatial concept development, body image, control, and purposeful movement
- Orientation techniques
- Adaptive visual or nonvisual mobility techniques
- Use of residual vision for travel or orientation
- Daily living skills related to community travel and independence

For reasons of safety and liability, persons providing instruction in orientation and mobility must be qualified. For example, instruction in the use of the long cane and off-campus instruction should be provided only by a credentialed orientation and mobility specialist.

Instruction in Daily Living Skills

Specific instruction in daily living skills will often be necessary if students are to function independently at home, at school, and later as adults. Sighted children learn these daily living skills from their parents beginning at a very early age. Parents of visually impaired students are often unaware of the students' ability to acquire these skills or are reluctant to teach them because they usually have not had any training in the use of adaptive techniques.

For sighted children, the acquisition of daily living skills is seen as a milestone in their development; e.g., eating and dressing independently or doing household chores. Often, visually impaired students are not expected to be independent in this area, resulting in the performance of daily living skills that is far below the level of skills expected from sighted students. Working closely with parents and other caretakers as

Career and vocational education are essential components in a program for visually impaired students.

early as possible is important so that they can assist in teaching these skills and following through at home. One of the most effective ways of teaching daily living skills is through involvement of the parents by providing instruction, as appropriate, in the student's home.

For sighted children many of these skills are learned incidentally or reinforced through visual modeling. Depending on the level of visual functioning of a visually impaired student, he or she should be taught these skills, using specialized or adapted skills and equipment. Teaching students to make simple adaptations is important so that they will be able to function independently in a variety of settings and situations.

Planning, instruction, and curriculum should focus on self-help needs of increasing complexity within each of the following daily living skill areas: personal hygiene, dressing, clothing care, housekeeping, food preparation, eating, money management, social communication, telephone use, written communication, time, and organization.

Career and Vocational Instruction

Career and vocational education are essential components in a program for visually impaired students. Even though new technology and legislation that prohibits discrimination have provided more opportunities for employment, visually impaired individuals will continue to encounter many barriers in realizing their employment potential. Career and vocational education should therefore begin early and continue through four phases: awareness, exploration, preparation, and participation.

Awareness. Awareness begins during early childhood and includes the development of a person's self-esteem and self-concept and the beginning of an understanding of how people live, work, and play. Activities at this level should begin to assist students in developing a realistic self-appraisal of their skills, abilities, attitudes, and strengths, as well as of their limiting factors. Instruction should also help students gain the skills, abilities, and attitudes they need to become successfully employed. Awareness also includes an introduction to the world of work and occupations, emphasizing those positions that are held, or could be held, by visually impaired individuals.

Exploration. Exploration should begin when students have developed a realistic awareness of their abilities and limitations as well as of their interests. Consideration of employment options that might appear to require vision should not automatically be eliminated. Instead, students should be encouraged to explore ways in which the occupational tasks could be adapted for a visually impaired person, including the use of technology. The rehabilitation counselors for the blind in the California State Department of Rehabilitation or other individuals knowledgeable about employment opportunities and adaptations for the visually impaired need to become involved.

Preparation. Preparation should include vocational training in the specific skills, abilities, and attitudes necessary for the individual's achievement in his or her career interest or choice. A student should become a client of the Department of Rehabilitation no later than the tenth or eleventh grade or after reaching a comparable chronological age.

Participation. Participation could include on-the-job training for a specific career or work experience that will provide an opportunity for individuals to develop the skills, abilities, and attitudes that will be valuable in any career choice. Cooperation with local vocational education programs is important, including sheltered workshops, regional occupational programs and centers, and local businesses. (See "Resources for Technical Assistance.")

Knowledge of individual rights and affirmative action policies, current law, and the skills of self-advocacy should also be included in the career and vocational education program.

All of these areas of learning and achievement are lifelong activities for everyone. Because visually impaired students are unable to learn about these areas through visual observation, as sighted students do, training of visually impaired students in meeting their career and vocational needs should receive special emphasis.

Materials and Equipment

To provide instruction and services to meet these assessed needs, a program must provide, as indicated by the student's IEP, materials and equipment, rang-

ing from braille, large type, recordings, and tactual diagrams to electronic aids. If the student's IEP so indicates, these materials and equipment must be provided.

Those responsible for providing materials and equipment for the visually impaired should follow these guidelines:

- Functionally blind students will need tactile or auditory adaptations or both, in the form of braille, recorded materials, and technological devices to function optimally within a classroom.
- Low vision students will often be able to use regular or large type as their primary reading medium, even though the use of adaptations such as low vision aids may be necessary; e.g., magnifiers or closed circuit television. Recorded materials, technological devices, and braille may also be needed.
- Multiply impaired students with a visual impairment will need to use a wide variety of materials and equipment, depending on the combination and severity of the impairments. For multiply impaired students who need a specialized curriculum, the standard adaptations (braille, typewriter, large type, and so forth) may be used as modes for learning. Students may need additional time to master the operation of equipment and the use of materials.
- Nonacademic students, infants, and preschool children will need to use concrete objects, picture representations, auditory and tactual materials, and so forth that may be more appropriate to enhance sensory stimulation, concept development, and readiness skills.

(See Appendix E, "Sources of Funding and Materials and Equipment.")

Roles and Responsibilities of Key Individuals

What do the key individuals who are involved in the assessment or provision of instruction, services, or consultation to visually impaired students need to know about these students' unique educational needs?

The skills, abilities, and knowledge these individuals possess in carrying out their roles and responsibilities should be examined.

Each IEP contains the special education instruction and services, including the specialized services, materials, and equipment needed by a visually impaired student. (See Appendix F for legal requirements.) The degree of coordination that can be achieved among all individuals involved in implementing the IEP, and the knowledge and skills of these individuals, will play a vital role in the success of the total program in meeting all of the needs of students with visual impairments.

Therefore, each of the following individuals who provide instruction and services to visually impaired students must understand his or her roles and responsibilities:

Teacher of the Visually Impaired

The teacher of the visually impaired has the following roles and responsibilities:

- Has primary responsibility for specialized instruction and services required to meet the unique educational needs of the visually impaired student
- Possesses the skills and abilities necessary to provide and coordinate this instruction
- Assists the student, parents, special and regular education personnel, and sighted peers in:

Understanding the unique educational needs and learning characteristics of visually impaired students

Becoming aware of services and support available from local programs for visually impaired students

Acquiring information regarding local, state, and national resources in the education of visually impaired students

Interpreting the visually impaired student's specific eye condition, the educational implications of the visual impairment, and the results of functional vision assessments

- Confers regularly with the classroom teacher, other regular and special education personnel, parents, and others to coordinate programs and services for the visually impaired student

The orientation and mobility specialist teaches students to travel with proficiency, safety, and confidence in familiar and unfamiliar environments.

- Assists the site administrator and teachers in making environmental adjustments for the student in the school situation and in the improvement of practices and procedures
- Shares responsibility with classroom teachers in the identification of instructional areas in which the student requires assistance
- Has responsibility for selecting and obtaining large-type or braille textbooks, supplementary materials, educational aids, and equipment needed by the visually impaired student and the classroom teacher to ensure the student's maximum participation in all classroom activities (Appropriate educational materials may be prepared or adapted by the teacher of the visually impaired, or they may be obtained from educational, clerical, or transcriber services.)
- Provides specialized instruction to the visually impaired student, school personnel, and parents in the use of necessary educational aids and equipment
- Provides instruction to the visually impaired student in the development and maintenance of skills designed to meet students' unique educational needs in the following areas, as indicated in the IEP:

Low vision and visual efficiency skills in coordination with the eye specialist

Concept development and academic skills in coordination with the classroom teacher and other staff

Sensory/motor skills in coordination with the physical education instructor, occupational and physical therapist, and the orientation and mobility specialist

Communication skills in coordination with the regular teacher and the language, speech, and hearing specialist (These skills include braille reading and writing as appropriate.)

Career and vocational education skills in coordination with career and vocational education staff and rehabilitation counselors

Social/emotional skills and abilities in coordination with the counselors, psychologists, and classroom teachers

Daily living skills in coordination with the orientation and mobility specialist, classroom teacher, and parent

- Provides assistance to the classroom teacher in academic subjects and activities of the classroom that, as a direct result of the visual impairment, require adaptation or reinforcement
- Provides assistance for any assessment
- Conducts the functional low vision assessment in coordination with the orientation and mobility specialist
- Attends IEP meetings for students with visual impairments
- Shares responsibility for initial and ongoing assessments, program planning, and scheduling with parents, the student, when appropriate, the classroom teacher, principal, counselor, and other school personnel
- Schedules adequate time for assessment, instruction, planning, preparation of materials, travel, and conferences with relevant school and other key individuals (Scheduling should be flexible to meet the varying needs of each student.)
- Maintains ongoing contact with parents to assist them in the development of a realistic understanding of the child's abilities, progress, and future goals
- Provides in-service training programs for all school personnel and students and education for parents regarding the needs, adaptations, programs, and services for visually impaired students
- Is aware of pamphlets, films, and other public relations materials that may be useful in developing realistic and unprejudiced attitudes toward visually impaired students
- Assists in the coordination of other personnel, such as transcribers, readers, counselors, orientation and mobility specialists, career/vocational education staff, and rehabilitation counselors
- Maintains a reference library of current professional materials
- Acquires information about current research, development, and technology

The teacher of the visually impaired in a self-contained classroom or school for the visually handi-

capped may be responsible for instruction in all subjects in addition to undertaking most of the previously listed responsibilities.

Classroom Teacher

The classroom teacher (regular, special class, or resource specialist) has the following roles and responsibilities:

- Provides instruction to the visually impaired student in the classroom
- Works cooperatively with the teacher of the visually impaired to:

Identify the visually impaired student's areas of educational need, including unique educational needs.

Coordinate instruction and services to meet these needs.

Provide the teacher of the visually impaired with classroom materials that need to be reproduced in another medium in a timely manner.

Determine mutually convenient times during the school day for scheduling the teacher of the visually impaired to work with the student.

Modify classroom procedures and environment to meet the specific needs of the visually impaired student for participation in classroom activities.

Exchange information concerning the visually impaired student with parents and other individuals on a regular basis.

Orientation and Mobility Specialist

The orientation and mobility specialist has the following roles and responsibilities:

- Instructs visually impaired students in the development of skills and knowledge that enable them to travel independently to the highest degree possible, based on assessed needs and the students' IEP
- Teaches students to travel with proficiency, safety, and confidence in familiar and unfamiliar environments

- Provides consultation and support services to parents, regular and special education teachers, other school personnel, and sighted peers
- Confers regularly with parents, classroom teachers, physical education teachers, and/or other special education personnel to assist in home and classroom environmental modifications, adaptations, and considerations and to ensure reinforcement of appropriate orientation and mobility skills that will encourage the visually impaired student to travel independently in these settings
- Works with the teacher of the visually impaired to conduct the functional vision assessment as it relates to independent travel
- Conducts assessments which focus on both long-term and short-term needs of the student
- Includes in the assessment report the needs and strengths of the student and an estimate of the length and frequency of service necessary to meet identified needs
- Prepares sequential and meaningful instruction geared to the student's assessed needs, IEP goals and objectives, functioning level, and motivational level
- Prepares and uses equipment and materials for the development of orientation and mobility skills; e.g., tactual maps, models, distance low vision aids, and long canes
- Transports students to various community locations as necessary to provide meaningful instruction in realistic learning environments
- Is responsible for students' safety at all times and in all teaching environments while fostering maximum independence
- Provides orientation and mobility instruction, where appropriate, in the following areas:
 - Body imagery
 - Laterality
 - Environmental concepts
 - Gross and fine motor skills related to independent travel
 - Sensory awareness, stimulation, and training
 - Spatial concepts
 - Compass direction concepts
 - Sighted guide procedures

The parent participates in ensuring that an appropriate educational program is planned and implemented to meet the individual needs of the child.

Basic protective and information gathering techniques

Orientation skills

Map skills

Cane skills

Use of residual vision

Low vision aids related to travel skills

Residential travel

Travel in business districts

Procedures for crossing streets, including traffic control signals

Use of public transportation systems

Procedures for use of the telephone for information gathering and for emergencies

Procedures for interacting with the public

Knowledge and application of community address systems

Procedures for travel and independent functioning in places of public accommodation

Skills of daily living

Sensory/motor skills in coordination with the physical or occupational therapist and teacher of the visually impaired

- Evaluates students' progress on an ongoing basis
- Keeps progress notes on each student
- Participates in necessary parents' conferences and meetings
- Provides in-service training to regular and special education personnel, sighted peers, and parents concerning the orientation and mobility needs of the visually impaired student and appropriate methods and procedures for interacting with the visually impaired person that will foster maximum independence and safety

Parent, Guardian, or Conservator

The parent, guardian, or conservator has the following roles and responsibilities:

- Is fully informed as to why an assessment is being conducted and how it is to be conducted
- Provides information relating to the assessment, including medical information
- Gives written informed consent before an individual assessment is conducted and may receive a copy of the assessment report when requested

- Is knowledgeable about the assessment results prior to the IEP meeting to participate more effectively in the meeting

- Participates as a member of the IEP team by:

Stating the observation of needs, expectations, interests, and goals for the child

Cooperating with school and other personnel to determine IEP goals and objectives for the child

Accepting responsibility for assisting in the implementation of IEP goals and objectives

- Participates in ensuring that an appropriate educational program is planned and implemented to meet the individual needs of the child and maintains communication with school personnel to accomplish this goal, including providing feedback and suggestions about the instruction and services being provided
- Provides, in cooperation with school personnel, an appropriate educational program in the home to improve students' daily living skills, career and vocational skills, orientation and mobility skills, and other developmental skills as a supplement to special instruction and services to meet the child's unique educational needs
- Participates in and provides ideas for formal and informal parental education programs that are designed to assist parents in understanding and meeting the needs of their visually impaired children
- Has information and assistance from school personnel and other sources to acquire the knowledge and skills necessary to participate in meeting the unique educational needs of the children (See "Resources for Technical Assistance.")

Visually Impaired Student

The visually impaired student has the following roles and responsibilities:

- Is involved, unless it is clearly not appropriate, in all decisions about his or her education
- Is encouraged to provide information about his or her unique educational needs, strengths, and expectations as a part of the assessment

- Participates, when appropriate, in the development of the IEP
- Gives feedback and suggestions about the instruction and services being provided
- Has high expectations and works toward achieving them to become as independent as possible

Eye Specialist

The eye specialist, a licensed ophthalmologist or optometrist, makes vision-related recommendations to the classroom teacher, teacher of the visually impaired, orientation and mobility specialist, or other professional staff. Some optometrists and ophthalmologists specialize in low vision impairment and have the necessary equipment and expertise to assess low vision and prescribe low vision aids. (See Appendix B, "Assessing Vision/Low Vision," for more detailed information.)

Regular or Adapted Physical Education Specialist

The regular or adapted physical education specialist has the following roles and responsibilities:

- Is knowledgeable about unique educational needs in the area of sensory/motor skills
- Works closely with the teacher of the visually impaired, the orientation and mobility specialist, and the occupational or physical therapist to share needed information and coordinate services that may be provided by these individuals
- Is familiar with specialized or adapted equipment for the visually impaired in the area of physical education

Occupational or Physical Therapist

The occupational or physical therapist has the following roles and responsibilities:

- Is aware of unique educational needs of the visually impaired, particularly in the areas of sensory/motor skills
- Works closely with the teacher of the visually impaired, orientation and mobility specialist, and physical education staff to coordinate services

School Nurse

The school nurse has the following roles and responsibilities:

- Acts as a liaison with health professionals, educators of the visually impaired, other school personnel, and parents
- Coordinates vision and hearing screening, including making referrals and providing hearing screening to visually impaired students
- Provides assistance in determining the need for additional health assessment; e.g., physical examinations and referrals to other agencies, including California Children Services and Regional Centers

Program Specialist

The program specialist has the following roles and responsibilities:

- Has in-depth knowledge of visually impaired students' unique educational needs and experience in providing education for these students
- Provides technical assistance and in-service training to all personnel working with visually impaired students and parents
- Is knowledgeable about local, state, and national resources for the visually impaired
- Is especially knowledgeable about program options and services available within the local plan area

Specialist in Career and Vocational Education

The specialist in career and vocational education has the following roles and responsibilities:

- Is aware of unique educational needs in career and vocational education and other related areas and appropriate career and vocational assessment tools
- Consults and works with the teacher of the visually impaired, orientation and mobility specialist, and parents in determining realistic goals and instruction in this and related areas
- Is knowledgeable about the expanding career and vocational education opportunities currently available to visually impaired individuals, including the use of technological aids
- Coordinates with the rehabilitation counselor for the blind in the local office of the California State Department of Rehabilitation

To be effective, all instruction and services should be coordinated to focus on the visually impaired student.

Language, Speech, and Hearing Specialist

The language, speech, and hearing specialist has the following roles and responsibilities:

- Is aware of the student's functional vision, unique educational needs in the areas of communication, particularly language development, concept development and academic skills, and sensory/motor skills
- Works closely with the teacher of the visually impaired to coordinate instruction and services

Counselor, Psychologist, or Social Worker

The counselor, psychologist, or social worker has the following roles and responsibilities:

- Is aware of the unique educational needs of the visually impaired student or the student's family
- Works closely with the teacher of the visually impaired to coordinate services
- Is knowledgeable about special considerations for visually impaired students when conducting assessments (See Appendix F for legal requirements.)

Transcriber (Certified Braille Specialist)

The transcriber (certified braille specialist) has the following roles and responsibilities:

- Holds Library of Congress certification for preparing materials in braille
- Adheres to standards of the Braille Authority of North America when preparing braille materials in mathematics, music, foreign language, or computer notation
- Is knowledgeable about embossing tools, techniques, and media and understands the concepts to be presented when preparing tactile materials
- Adheres to the transcribing standards and procedures for large type of the National Braille Association and qualifies as a typist according to the standards of the local educational agency when preparing materials in large type
- Has the necessary competencies to prepare aural media, including knowledge of recording equipment, the ability to comprehend and present materials at an appropriate pace, and a well-modulated voice

Reader

The reader has the following roles and responsibilities:

- Possesses the skills necessary to read print materials to visually impaired students, including:
 - Knowledge in the use of recording equipment
 - Good articulation, pronunciation, and pleasant voice
 - Ability to follow the directions of the teacher and student
 - Ability to meet deadlines
- Works under the supervision of the teacher of the visually impaired, when the reader is a sighted student or volunteer

Aide

The aide has the following roles and responsibilities:

- Assists, as directed by the teacher of the visually impaired or other credentialed staff, in the following areas:
 - Facilitating the classroom organization and environment
 - Reinforcing the individualized instruction provided by the teacher to achieve IEP goals and objectives
 - Planning and preparation of materials
- Is familiar with the unique needs of students in the class

Ancillary Staff in Residential Programs

The roles and responsibilities of staff members will vary, depending on the agency in which they work:

- Dormitory and ward personnel, including psychiatric technicians in state hospitals, are responsible for the health, safety, and well-being of students when they are not in school. Since these staff members engage in activities with students similar to those normally provided by parents, these personnel should be aware of the unique needs of students and coordinate with instructional staff, particularly in the area of daily living skills, so that consistency in expected behavior occurs.

- Food service staff members are responsible for planning, preparing, and serving meals to students. Diets should be monitored so that they meet the special needs of students. Food service staff should coordinate with instructional staff, when appropriate, in reinforcing students' eating skills.
- Health services staff members are responsible for the health and medical needs of students and should communicate with appropriate personnel regarding the changing health and medical needs of students, particularly concerning medications and special health care needs.

Coordination of Instruction and Services

How does the program coordinate instruction and services to visually impaired students?

To be effective, all instruction and services should be coordinated to focus on the visually impaired student. Meetings concerning the individualized education program and the program itself should form the foundation for the coordination of instruction and services.

It is important, however, that all key individuals involved develop formal and informal ways to communicate with one another on an ongoing basis to ensure that the individualized education program is implemented in a coordinated manner. Since many key individuals are often involved in the education of visually impaired students, one staff member should be assigned to facilitate this coordination among all key individuals, including the parent. In most cases, the teacher of the visually impaired will have this responsibility when the visual impairment is the student's primary disability.

Organizing and Supporting Instruction and Services

This chapter presents a discussion of the provision of services on a regional basis. Also discussed are administrative roles and responsibilities, placement in the least restrictive environment, class sizes and caseloads, staff and supervision, staff development and parental education, guidelines for facilities, emergency procedures, materials and equipment, transportation, and program improvement.

Regionalization

How does the program ensure that appropriate instruction and services are provided through a full range of program options on a regional basis?

The concept of regionalization is particularly important for programs serving visually impaired students who constitute a low-incidence group spanning a wide range of ages. New programs for visually impaired students should be planned and existing programs modified so that instruction and services necessary to meet these students' varied unique educational needs, including needed materials and equipment, can be provided through coordinated administrative services on a regional basis.

To provide the needed instruction and services in an efficient and cost-effective manner, staff members from the special education local plan area (SELPA) may find it necessary to cooperate with adjacent SELPAs and states, particularly in rural areas. Other options include contracting with private agencies for services, teleconferencing, and using staff members who are dually credentialed as teachers of the visually impaired and as orientation and mobility specialists.

(See "Resources for Technical Assistance" and Appendix F for legal requirements.)

Administrative Roles and Responsibilities

In this section the roles and responsibilities are examined for staff from the special education local plan area (SELPA), the supervisor of personnel serving visually impaired students, and the site administrator or designee.

Special Education Local Plan Area (SELPA)

Each SELPA submits a local plan to the Superintendent of Public Instruction, which includes the following:

- A description of services to be provided by each district and county office, demonstrating that the SELPA is of sufficient size and scope to ensure that all individuals with exceptional needs, including visually impaired students, have access to services and instruction appropriate to meet their needs, as specified in their individualized education programs (Responsibility for provision of and consultation to special education programs and support services for visually impaired students must be clearly defined, including, when necessary, provisions for coordinating with adjacent SELPAs, other public agencies, other states, and contracting with private agencies.)
- A description of the governance and administration of the plan (The roles and responsibilities of SELPA special education administrators, district and county, are unique to each SELPA. See Appendix F for legal requirements.)

Supervisor of Personnel Serving the Visually Impaired

The supervisor of personnel serving visually impaired students has the following roles and responsibilities:

- Is knowledgeable about the unique educational needs of visually impaired students and the roles and responsibilities of the personnel being supervised so that he or she may assist in improving the instruction and services being provided to meet these needs
- Is knowledgeable about the other areas outlined in this chapter, as well as funding sources (see Appendix E) and legal requirements (see Appendix F), so that he or she can be responsive and supportive of improving instruction and services based on the changing needs of students, staff, and parents

Site Administrator or Designee

The site administrator or designee has the following roles and responsibilities:

- Is knowledgeable about the needs of visually impaired students and the roles and responsibilities of the regular teacher, the teacher of the visually impaired, and other staff working with these students
- Assists in the coordination of all instruction and services in the school, including regular course of study, instruction, and special services, such as bilingual education and special education, including alternative instructional strategies and proficiency standards
- Assists in promoting and supporting the least restrictive environment for students by assisting the school in accepting the student, special staff, and parents of visually impaired students as a part of the school (This acceptance can be supported through coordinated staff in-service training and parental education and by providing information to all students in the school about visual impairments through classroom activities, cross-age tutoring, and student assemblies.)
- Provides facilities that are appropriate to meeting the unique needs of visually impaired students, as outlined later in this chapter

Placement in the Least Restrictive Environment

How does the program ensure that visually impaired students are appropriately placed in the least restrictive environment on the basis of their educational needs?

When making placement decisions, the IEP team should:

- Focus on the assessed educational needs and strengths of each visually impaired student.
- Determine a placement in which these needs can appropriately be met.
- Change the placement as the needs of the student change.

The least restrictive environment for each student may vary with the intensity of the needs of the student. Students with needs that require intensive specialized instruction and services should be placed where these can be provided. Placing a student in an

Parents should be provided with opportunities to meet with other parents of visually impaired children to exchange ideas and information.

integrated setting, when the student does not have the skills or the necessary services to achieve and adapt in this setting, can actually be more restrictive. However, visually impaired students who have the necessary skills and services should be placed with nonhandicapped students to the maximum extent appropriate. Placement in an integrated setting, however, does not mean the student is automatically integrated. It is important to prepare the student for integration. Sighted peers and staff should also be prepared so that they have the knowledge, skills, and attitudes necessary to assist them in accepting the student without prejudice.

Often, an ideal placement does not exist where all of the student's needs can be met at once. At this point the IEP team should look at the student's entire educational career, including possible future program options that can be expected to meet these needs better.

Visually impaired students with additional disabilities are appropriately grouped with other students with similar needs. Students with a visual impairment as their sole or major disability are grouped with nonhandicapped peers to provide appropriate academic and behavioral models and appropriate levels of expectation for achievement.

The IEP team, in making the important placement decision, should be creative, particularly in rural areas, in deciding on the option that will best meet the needs of each visually impaired student. Included here would be exploring programs in neighboring SELPAs, adapting existing programs, and exploring services provided by public and private agencies.

Program Options

The following are the recommended minimum options in a range of specialized services and programs available to visually impaired students. They are listed according to the intensity of instruction and services provided by the teacher of the visually impaired from least intensive to most intensive.

The options are identified by nationally accepted terminology, rather than by funding terminology, because options may be funded in a variety of ways, depending on local needs. Appendix E provides information about funding sources for the program options described in the paragraphs that follow.

Itinerant teacher. Students are enrolled in a regular classroom in the school they would attend if they were not visually impaired, or they are enrolled in resource specialist programs or special classes if they have multiple disabilities and require specialized instruction to meet their unique educational needs. Such instruction is provided by a teacher of the visually impaired to students according to their needs for these specialized services. For those children below school age, the itinerant teacher will provide intervention strategies in the home or in a preschool setting.

Resource room. Students are enrolled in a classroom for visually impaired students who have more intensive needs that, ordinarily, require daily support services and specialized instruction provided by a teacher of the visually impaired. Students are integrated into regular and special education classrooms from the resource room for varying amounts of the school day based on individual needs, as determined by the teacher of the visually impaired and the classroom teachers.

Self-contained classroom. Students are enrolled in a classroom for visually impaired students and ordinarily require specialized instruction for all or most of the school day. Instruction that emphasizes both subject matter skills and the development of special skills is provided by a teacher of visually impaired students in coordination with other appropriate staff. Students may profit by participating in the regular classes in selected academic subject areas or nonacademic areas as appropriate.

Special school. Students are enrolled in a special school that exclusively serves visually impaired students with additional disabilities or unique needs. These students have the most intensive needs that require specialized instruction and support services beyond those that can reasonably be provided in local school programs. Special school programs may be offered on a day or residential basis. These programs include:

- A special school in a local educational agency
- The California School for the Blind (See Appendix C.)
- State hospital programs for the visually impaired (See Appendix D.)

Students enrolled in special school programs should have access to programs in local schools to provide opportunities for integration as appropriate.

Nonpublic schools and agencies. A nonpublic school may be a program option when the student's needs cannot be met by a public agency. Services may be provided by nonpublic schools and agencies when such services are not available; e.g., orientation and mobility instruction, instruction in daily living skills, and infant and preschool services. (See "Resources for Technical Assistance" for additional information.)

Program Options for Infants and Preschool Children

Various options exist at the infant and preschool program level in California. All program options, however, may not be available in each community. The following options are cited as examples, not as a complete list:

- Public school programs for infants and preschool handicapped children
- Nursery schools that are supported by parents, private organizations, adult education centers, and others
- State preschool programs
- Children's centers, migrant child care centers, and campus children's centers
- School-age parenting and infant development programs
- Head start programs
- Family counseling services, such as:
 - Providing information and assistance to parents regarding their child's cognitive, physical, social, and emotional development
 - Referring children to the appropriate educational facilities
 - Assisting infant and preschool teachers in methods of integrating and educating young visually impaired children
- An educational adviser to preschool blind with the California State Department of Education and other public and private agencies provides counseling services and educational guidance to visually impaired children and their families

Parents should be provided with opportunities to meet with other parents of visually impaired children

to exchange ideas and information and also to meet and consult with visually impaired adolescents and adults. Information about programs should be disseminated to parents through agencies and individuals involved in the identification and provision of services for visually impaired children.

Class Sizes and Caseloads

How does the program establish class sizes and caseloads that allow for providing specialized instruction and services based on the educational needs of visually impaired students?

It is essential to establish class sizes or caseloads for the teacher of the visually impaired and for the orientation and mobility specialist that are appropriate to provide the instruction and services necessary to meet the unique educational needs of visually impaired students. It is recommended that programs use one or both of the following approaches in determining class sizes and caseloads:

- Develop a process for establishing and monitoring the class size or a caseload of the teacher of the visually impaired or of the orientation and mobility specialist, based on the time required for:

Providing instruction based on the severity or intensity of students' needs

Consulting with the classroom teacher and other staff, including consultation when the student is not receiving direct instruction

Consulting and assisting parents

Traveling necessary to carry out the responsibilities

Securing and preparing needed specialized materials, media, and equipment

Attending meetings, preparing reports, and recordkeeping

- Include in the process ongoing communication between the staff member and the responsible supervisor or administrator to ensure that students are receiving appropriate instruction and services in accordance with the IEP and the changing needs of students.

Provision of necessary qualified staff is a critical component in providing appropriate assessments, instruction, and services.

- Establish local caseloads and class sizes based on the age and the severity of the needs of the students being served and the instruction and services needed to meet these needs.

The following ranges for class sizes and caseloads are based on state and national averages for agencies to use as a general guide in establishing local caseloads and class sizes. These ranges should not be viewed as establishing minimum state requirements.

<i>Type of program</i>	<i>Class size and caseload ranges</i>
Resource room (one teacher and one aide)	8 to 12 students
Self-contained classrooms (one teacher and one aide):	
Infants or preschool	4 to 8 students
Kindergarten through third grade	6 to 10 students
Fourth through twelfth grade	8 to 12 students
Multihandicapped	3 to 7 students
Itinerant teacher	8 to 12 students
Orientation and mobility instructor	8 to 12 students
Home-based infants or pre-school age	13 to 17 children

Local caseloads and class sizes of staff may fall above or below these ranges according to the time requirements outlined in the preceding option.

Staff and Supervision

How does the program provide qualified certificated and noncertificated personnel who have the skills and abilities necessary to conduct assessments and to provide instruction and services that meet the educational needs of visually impaired students?

Provision of necessary qualified staff is a critical component in providing appropriate assessments, instruction, and services.

Certificated Personnel

Programs for the visually impaired include the necessary appropriately credentialed professional staff, including the following (see Appendix F for legal requirements):

- Teachers of the visually impaired who are credentialed in this area and possess the skills and abilities necessary to meet the unique educational needs of the visually impaired students they serve (See "Resources for Technical Assistance." Visually impaired students are taught by teachers who have credentials in this area. See Appendix F for legal requirements.)
- Orientation and mobility instructors who are credentialed in this area and possess the skills and abilities necessary to meet the unique orientation and mobility needs of the visually impaired students they serve (See "Resources for Technical Assistance.")
- Assessment personnel, including a psychologist, as appropriate, who are knowledgeable about assessing visually impaired students (See Chapter Three for additional information regarding assessment personnel.)
- Other professional staff, including, but not limited to, regular and special education teachers; program specialists; language, speech, and hearing specialists; physical and occupational therapists; adapted physical education specialists; school nurses; recreation therapists; social workers; and guidance counselors
- All staff should be knowledgeable about their roles and responsibilities in providing and coordinating needed instruction and services as outlined in Chapter Four. Personnel serving pre-school children should have competencies and experience in the areas of education for the visually impaired and early childhood education.

Noncertificated Personnel

Each program for the visually impaired should also provide, as needed, transcribers, readers, aides, recreation therapists, and other personnel who possess the skills necessary to meet unique educational needs.

Staff Development and Parent Education

How does the program provide staff development and parent education that are based on a needs assessment reflecting the unique educational needs of visually impaired students?

Staff development, based on a continuing needs assessment, is provided for all special and regular education personnel regarding the unique educational needs of visually impaired students and the roles and responsibilities of the staff in meeting these needs. (See Chapter Four for a discussion of the roles and responsibilities of staff and Appendix F for legal requirements.)

Parent education is provided in every program for the visually impaired, based on a continuing needs assessment to:

- Assist parents in their roles and responsibilities to meet the special developmental needs of their visually impaired children through ongoing two-way communication. (See Chapter Four for a discussion of the roles and responsibilities of parents.)
- Provide parents with needed information pertinent to the education of their children, including information regarding the range of educational program options and related agencies and services at local, state, and national levels. (See Appendix F for legal requirements.)

Guidelines for Facilities

How does the program provide for the design or modification of facilities to enhance the provision of instruction and services to visually impaired students?

Facilities should be provided to meet the unique educational needs of visually impaired students. Resource rooms or self-contained classes used in programs for the visually impaired should be the standard size for regular classrooms of the school system. The room should include:

- Adjustable lighting appropriate to the needs of the low vision students

- Adequate storage space for special equipment
- A separate area for listening activities
- Furniture with nonglare surfaces
- A sufficient number of electrical outlets for specialized equipment
- A location on the site that allows convenient accessibility for all visually impaired students attending regular classes

The teacher of the visually impaired should provide assistance in designing and modifying facilities to meet the needs of students who will be using them.

The following guidelines should be considered:

- Appropriate bathroom facilities should be provided for multihandicapped and primary age students.
- Adequate working space for individual instruction and counseling should be available in each school attended by a visually impaired student served by an itinerant teacher.
- Adequate space should be provided in regular classrooms for the visually impaired student's specialized equipment and materials.
- Office space should be available for itinerant teachers and orientation and mobility instructors. Such office space should include adequate storage areas, telephones, answering service, and clerical assistance.

Adequate working space for the transcriber should be provided. Special equipment should be available as needed for production and duplication of materials, including large-print typewriters and duplicators, tape recording equipment and duplicators, braillewriters, and braille duplicating equipment.

Programs for visually impaired preschool children should be housed in a school or facility where:

- Other preschool programs are available for non-handicapped children to provide integration opportunities for the visually impaired child.
- Bathroom facilities have been designed or adapted for young children.
- Playground facilities are adjacent to the classroom and include space for appropriate toys and equipment.

Emergency Procedures

Students with visual impairments, like all other students, should receive instruction and practice in responding appropriately and calmly to emergencies by participating in fire and earthquake drills, bus evacuation drills, and other emergency procedures, including possible specialized health care needs. Local codes and ordinances regarding emergency procedures must be followed.

Staff should be prepared to handle emergencies, including a knowledge of the specific procedures to follow. The teacher of the visually impaired or the orientation and mobility specialist should provide assistance to the students and staff in evacuation routes and procedures. The school nurse should assist with procedures to follow for medical emergencies.

Materials and Equipment

How does the program provide the materials and equipment necessary to meet the unique educational needs of visually impaired students as specified in the IEP?

Materials and equipment are provided as indicated in the IEP to meet the unique educational needs of visually impaired students. (See Appendix F for legal requirements.)

Sufficient time must also be allocated for the transcriber or teacher of the visually impaired to locate, prepare, and disseminate materials and equipment for each student.

Because expensive materials and equipment are often not available from other sources, funds at the local level must be budgeted to ensure that necessary books, materials, and equipment are provided, coordinated, and maintained. The intent of the Legislature is that, to the extent funding is available, school districts and county offices give first priority to expenditures to provide specialized books, materials, and equipment that are necessary and appropriate for the individualized education programs of pupils with low-incidence disabilities.

Materials and equipment purchased with federal or state funds by local educational agencies remain the

property of the state and may be reassigned by the Clearinghouse Depository for Handicapped Students (CDHS) when they are no longer being used locally. It is important that a process for tracking materials and equipment purchased to implement the IEP of visually impaired students be maintained so that this information may be reported to the CDHS. (See Appendix E for sources of funding and Appendix F for legal requirements.)

An organized, cost-effective, and coordinated system for acquiring, coordinating, disseminating, and maintaining these special materials and equipment should be operated from a central location in the SELPA, with one individual assigned this responsibility.

Transportation

How does the program provide for transportation that is suitable to the health and safety needs of visually impaired students?

When visually impaired students are transported to special classes or schools:

- Transportation is arranged appropriate to the health and safety of the students, including consideration of the travel time involved.
- Drivers are made aware, through continuing in-service training by the orientation and mobility instructor or teacher of the visually impaired, of unique orientation and mobility needs that may be useful, including emergency, drop-off, and pick-up procedures.
- Students are encouraged to travel independently to and from school when they have the necessary orientation and mobility skills.

Program Improvement

How does the program improve its effectiveness in identifying, assessing, planning, and providing instruction and services to meet the unique educational needs of visually impaired students?

Each program serving visually impaired students has an ongoing process to evaluate the effectiveness of the program in meeting students' needs and using the

Each program serving visually impaired students has an ongoing process to evaluate the effectiveness of the program in meeting students' needs.

results for program improvement. This evaluation process should encompass all of the areas outlined in this document, using the standards and the key questions in each chapter and the "Self-review Guide" (Appendix A) as the basis for the review.

When conducting a self-review, program planners should develop specific questions for interviewing administrators, special and regular education staff, and parents and for reviewing students' records and other documentation. Interview questions should be open-ended, beginning with *how*, *what*, *who*, and *when* as appropriate. This approach will provide more valuable information than simple yes or no questions

for determining and improving the effectiveness of a program. This approach can also clarify who is responsible for the elements of the program and yield a local consensus for possible local evaluation studies.

These guidelines are considered when programs serving visually impaired students are monitored by the California State Department of Education. The Department also provides technical assistance to parents, teachers, and administrators in the implementation of these guidelines. (See "Resources for Technical Assistance" and Appendix F, "Legal Requirements.")

Self-review Guide

This self-review guide contains criteria for evaluating the components of chapters three through five. Listed in this guide are laws or regulations on which the criteria are based, page numbers in this publication in which the criteria appear, a listing of the criteria, a scale for rating the effectiveness of the program, and a section for comments.

To rate the level of effectiveness of a criterion, program reviewers should place beside each criterion one of the numbers shown under the column heading, "program effectiveness." The footnote shows the rating that each number represents.

Chapter Three—Assessing Unique Educational Needs

Reference ¹	Criteria	Program effectiveness ²				Comments
		1	2	3	4	
p. 13 EC 56300 through 56303	How effective is your program in providing for each of the following:					
p. 14	I. <i>Locating and referring students with visual impairments who may require special education, including possible referrals from the vision screening program?</i>					
p. 14	A. Providing the process for referring students identified through vision screening?					
p. 14	B. Informing parents and staff of signs that may indicate a visual impairment?					
p. 14	C. Coordinating with local eye specialists and other referral sources?					
p. 14 EC 56320(f)	II. <i>Assessing students with suspected visual impairments in all of the following areas when appropriate?</i>					
p. 14 Appendix B	A. Assessing vision/low vision:					
	1. Acquiring as much information as possible on eye reports?					
	2. Ensuring that students with residual vision receive a low vision assessment?					
	a. Conducting functional vision assessments?					
	b. Determining the need for further assessment?					

¹Refer to the page of the guidelines, chapter, or appendix or *Education Code* section for compliance items (see Appendix F for legal requirements).

²Program effectiveness: 1 = Ineffective, 2 = Somewhat effective, 3 = Effective, 4 = Very effective.

Assessing Unique Educational Needs—Continued

Reference ¹	Criteria	Program effectiveness ²				Comments
		1	2	3	4	
p. 15	<p>c. Using the low vision assessment to determine needs in the other areas related to this disability?</p> <p>B. Assessing concept development and academic skills:</p> <ol style="list-style-type: none"> 1. Coordinating with the classroom teacher? 2. Determining the students' mode of functioning in academic tasks? 3. Basic concepts? 4. Listening skills? 5. Study skills? 					
p. 15	<p>C. Assessing communication skills:</p> <ol style="list-style-type: none"> 1. Typing? 2. Signature? 3. Communication equipment? 4. Use of computers? 5. Use of optical aids? 6. Slate and stylus? 7. Abacus? 8. Use of specialized equipment? 					
p. 16	<p>D. Assessing social and emotional skills:</p> <ol style="list-style-type: none"> 1. Socialization skills? 2. Affective education? 3. Recreation? 4. Human sexuality? 5. Psychological implications of the visual impairment? 					
p. 16	<p>E. Assessing sensory/motor skills:</p> <ol style="list-style-type: none"> 1. Gross and fine motor skills? 2. Alternative sensory discrimination and integration skills? 3. Posture, balance, strength, movement, and coordination? 					
p. 16	<p>F. Assessing orientation and mobility skills:</p> <ol style="list-style-type: none"> 1. Concepts? 2. Body image control and purposeful movement? 3. Orientation and mobility skills? <ol style="list-style-type: none"> a. Home? b. School? c. Community? 4. Use of residual vision? 5. Interaction with the public? 6. Acquiring and remembering necessary information? 7. Related daily living skills? 					

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²Program effectiveness: 1 = Ineffective, 2 = Somewhat effective, 3 = Effective, 4 = Very effective.

Assessing Unique Educational Needs—Continued

Reference ¹	Criteria	Program effectiveness ²				Comments
		1	2	3	4	
p. 16	G. Assessing daily living skills: 1. Personal hygiene? 2. Dressing skills? 3. Clothing care? 4. Food preparation? 5. Eating skills? 6. Money management? 7. Social communication? 8. Telephone skills? 9. Written communication? 10. Time skills? 11. Organization skills?					
p. 16	H. Assessing career and vocational skills: 1. Exploration? 2. Awareness? 3. Preparation? 4. Participation?					
p. 17 EC 56320(g)	III. <i>Providing assessment personnel who are knowledgeable about visual impairments:</i>					
p. 17	A. Involving the teacher of the visually impaired in determining appropriate assessment strategies?					
p. 17	B. Providing for communication among individuals conducting assessments?					
p. 17	C. Determining the best qualified individual to conduct assessments?					
p. 17 EC 56327(h)	IV. <i>Identifying in the assessment report the student's unique educational needs related to the visual impairment, including needs for specialized materials and equipment in the following areas:</i> A. Vision/low vision needs? B. Concept development and academic needs? C. Communication needs? D. Social/emotional needs? E. Sensory/motor needs? F. Orientation and mobility needs? G. Daily living skills and needs?					
p. 17 EC 56320(g)	V. <i>Considering the variables that affect unique educational needs when the following are assessed:</i>					
p. 18	A. Congenitally and adventitiously visually impaired students?					
p. 18	B. Students with multiple impairments?					

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Assessing Unique Educational Needs—Continued

Reference ¹	Criteria	Program effectiveness ²				Comments
		1	2	3	4	
p. 18	C. Infants and preschool children?					
p. 18	D. Elementary and secondary students?					
p. 19	E. The nature of the visual impairment?					
p. 19	F. Functionally blind and low vision students?					
p. 19	G. Students with other special needs?					

Chapter Four—Planning and Providing Instruction and Services

Reference ¹	Criteria	Program effectiveness ²				Comments
		1	2	3	4	
p. 20	How effective is your program in providing for each of the following:					
EC 56345(b)(7)	VI. <i>Using assessed unique educational needs in the following areas?</i>					
	A. Developing the IEP, including the need for specialized materials and equipment in the following areas:					
	1. Concept development and academic needs?					
	2. Communication needs?					
	3. Social/emotional needs?					
	4. Sensory/motor needs?					
	5. Orientation and mobility needs?					
	6. Daily living skills needs?					
	7. Career and vocational needs?					
EC 56364.1	B. Providing appropriate instruction and services in the following areas:					
	1. Concept development and academic needs?					
	2. Communication needs?					
	3. Social/emotional needs?					
	4. Sensory/motor needs?					
	5. Orientation and mobility needs?					
	6. Daily living skills needs?					
	7. Career and vocational needs?					
EC 56220(c)(5)	C. Developing curriculum:					
	1. Concept development and academic needs?					
	2. Communication needs?					
	3. Social/emotional needs?					
	4. Sensory/motor needs?					
	5. Orientation and mobility needs?					
	6. Daily living skills needs?					
	7. Career and vocational needs?					

¹Refer to the page of the guidelines, chapter, or appendix or *Education Code* section for compliance items (see Appendix F for legal requirements).

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Planning and Providing Instruction and Services—Continued

Reference ¹	Criteria	Program effectiveness ²				Comments
		1	2	3	4	
p. 24 EC 56345(b)(7) Appendix E	D. Providing the necessary equipment and materials in accordance with the IEP to meet the unique educational needs for: <ol style="list-style-type: none"> 1. Functionally blind students? 2. Low vision students? 3. Multiply impaired students? 4. Nonacademic students, infants, and preschool children? 					
p. 25 EC 56001(n)	VII. <i>Ensuring that the following key individuals understand the unique needs and possess the skills and abilities to carry out their roles and responsibilities:</i>					
p. 25	A. Teacher of the visually impaired?					
p. 27	B. Classroom teacher (regular, special class, or resource specialist)?					
p. 27	C. Orientation and mobility specialist?					
p. 28	D. Parent, guardian, or conservator?					
p. 28	E. Visually impaired student?					
p. 29	F. Eye specialist?					
p. 29	G. Regular or adapted physical education instructor?					
p. 29	H. Physical or occupational therapist?					
p. 29	I. School nurse?					
p. 29	J. Program specialist?					
p. 29	K. Specialist in career and vocational education?					
p. 30	L. Language, speech, and hearing specialist?					
p. 30	M. Counselor?					
p. 30	N. Psychologist?					
p. 30	O. Social worker?					
p. 30	P. Transcriber?					
p. 30	Q. Reader?					
p. 30	R. Aide?					
p. 30	S. Ancillary staff in residential programs: <ol style="list-style-type: none"> 1. Dormitory or ward personnel? 2. Food services staff? 3. Health services staff? 					
p. 31	VIII. <i>Coordinating the instruction and services provided to meet all of the needs of visually impaired students:</i>					
p. 31	A. Using the IEP as the focus for coordination?					
p. 31	B. Assigning an individual responsible for this coordination?					

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Chapter Five—Organizing and Supporting Instruction and Services

Reference ¹	Criteria	Program effectiveness ²				Comments
		1	2	3	4	
p. 32 EC 56369	How effective is your program in providing for each of the following:					
p. 32	IX. <i>Providing for the delivery of appropriate instruction and services through a full range of program options that are provided, as necessary, on a regional basis:</i>					
pp. 32-33	A. Providing necessary instruction and services through regionalization?					
	B. Ensuring that administrative roles and responsibilities are understood by:					
	1. The SELPA?					
	2. The supervisor of personnel serving visually impaired students?					
	3. The site administrator or designee?					
p. 33 EC 56200(a)(b)	X. <i>Placing students appropriately in the least restrictive environment:</i>					
p. 33	A. Considering the changing needs and strengths of students?					
p. 33	B. Placing students based on the intensity of needs and the intensity of instructional services to meet these needs?					
p. 34	C. Preparing the student for integration?					
p. 34	D. Preparing school staff and peers for integration?					
p. 34	E. Grouping students appropriately?					
p. 34	F. Exploring additional program options?					
p. 34	G. Providing the following program options, when needed, through regionalization:					
	1. Itinerant teacher?					
	2. Resource room?					
	3. Self-contained classroom?					
	4. Special school?					
	5. Nonpublic schools and agencies?					
	6. Additional options for infants and preschool children?					
p. 35	XI. <i>Establishing class sizes and caseloads of staff to allow for providing specialized instruction and services based on the needs of visually impaired students by:</i>					
p. 35	A. Developing a process for establishing and monitoring class sizes and caseloads based on the time required to meet students' needs?					

¹Refer to the page of the guidelines, chapter, or appendix or *Education Code* section for compliance items (see Appendix F for legal requirements).
²Program effectiveness: 1 = Ineffective, 2 = Somewhat effective, 3 = Effective, 4 = Very effective.

Organizing and Supporting Instruction and Services—Continued

Reference ¹	Criteria	Program effectiveness ²				Comments
		1	2	3	4	
p. 36	B. Establishing local caseloads and class sizes based on the age of the students and the severity of their needs?					
p.36 EC 56001(n)	XII. <i>Providing qualified professional and para-professional personnel who have the skills and abilities necessary to conduct assessments and provide instruction and services that meet the educational needs of students:</i>					
p. 36	A. Certificated personnel: 1. Appropriately credentialed teachers of the visually impaired? 2. Appropriately credentialed orientation and mobility specialists? 3. Assessment personnel? 4. Other professional staff as needed?					
p. 36	B. Noncertificated personnel: 1. Transcribers? 2. Readers? 3. Aides? 4. Other staff as needed?					
p. 37 EC 56240 EC 56220(c)(2) p. 37	XIII. <i>Providing staff development and education for parents based on a needs assessment:</i> A. Basing the needs assessment for parent education on parents' roles and responsibilities and unique educational needs of their children? B. Basing the needs assessment for staff development on the staff members' roles and responsibilities and the unique educational needs of the students they serve?					
p. 37	XIV. <i>Designing and modifying facilities to enhance the provision of instruction and services to meet the unique educational needs of visually impaired students in the following areas:</i>					
p. 37	A. Facilities for school-age students: 1. Lighting? 2. Equipment, storage space, and electrical outlets? 3. Listening skills? 4. Furniture with nonglare surfaces? 5. Accessibility? 6. Bathroom facilities? 7. Work area for students being served by an itinerant teacher? 8. Work space for the transcriber? 9. Special equipment for production and duplication of materials?					

¹Refer to the page of the guidelines, chapter, or appendix or *Education Code* section for compliance items (see Appendix F for legal requirements).

²Program effectiveness: 1 = Ineffective, 2 = Somewhat effective, 3 = Effective, 4 = Very effective.

Organizing and Supporting Instruction and Services—Continued

Reference ¹	Criteria	Program effectiveness ²				Comments
		1	2	3	4	
p. 37	B. Facilities for infants and preschool children: 1. Opportunities for integration with non-handicapped students? 2. Bathroom facilities? 3. Playground and storage space?					
p. 38	C. Emergency procedures?					
p. 38 EC 56345(b)(7) EC 56739	XV. <i>Providing curriculum materials in special media (braille, large print, recorded) and other educational materials and equipment necessary to meet the unique educational needs of students, as specified in the IEP:</i>					
p. 38	A. Establishing a system for budgeting that projects costs of equipment and materials?					
p. 38	B. Allowing time for the teacher or transcriber, or both, to locate, prepare, and disseminate materials and equipment?					
p. 38	C. Establishing an organized, cost-effective, and coordinated system for acquiring, disseminating, and maintaining specialized equipment and materials?					
p. 38 EC 56221(b)(5)	XVI. <i>Providing appropriate transportation for visually impaired students by:</i>					
p. 38	A. Considering health and safety, including travel time?					
p. 38	B. Providing continuing in-service training to drivers?					
p. 38	C. Encouraging students to travel independently when appropriate?					
p. 38 EC 56220(c)(6)	XVII. <i>Establishing a process to improve the effectiveness of programs in meeting the needs of visually impaired students in these areas:</i>					
Chapter Three	A. Identification?					
Chapter Three	B. Assessment?					
Chapter Four	C. Planning?					
Chapter Four and Chapter Five	D. Providing instruction and services?					
p. 38	E. Using the information obtained through a self-review process to: 1. Identify areas of need and suggestions for improvement? 2. Identify areas of strength? 3. Identify needs for technical assistance? 4. Coordinate with monitoring activities of the State Department of Education? 5. Identify possible topics for local annual evaluation?					

¹Refer to the page of the guidelines, chapter, or appendix or *Education Code* section for compliance items (see Appendix F for legal requirements).²Program effectiveness: 1 = Ineffective, 2 = Somewhat effective, 3 = Effective, 4 = Very effective.

Assessing Vision/Low Vision

This appendix contains a list of visual impairments and a discussion of procedures for assessment of functional vision and for assessment by a qualified eye specialist. Samples of the following forms also appear: "Registration of Visually Handicapped Students, as of January 2, 19—," "Eye Report for Children with Visual Problems," "Preferred Visual Acuity Notations," "Educationally Oriented Vision Report," and a "Functional Vision Checklist Summary Sheet."

Visual Impairments

The list of visual impairments in this appendix is by no means meant to be complete or all-inclusive. Rather, it is presented as an example of the range of visual impairments that may be encountered. Many of the visual impairments listed may be congenital or adventitious. The educational implications of the eye condition are an important factor in determining needs. Interaction of the teacher of the visually impaired, the eye specialist, and the student's physician is essential in assessing and meeting the visually impaired student's unique educational needs in this area.

The list of visual impairments follows:¹

1. Irregularities of the optical media (e.g., cornea, lens, aqueous and vitreous humors), such as keratoconus, irregular astigmatism, or lentiglobus, cause either a distortion of the visual image or photophobia, or both, and may cause monocular diplopia.
2. Medial opacities, such as cataracts, corneal scarring, or vitreous turbidity, may cause light deprivation, glare or scattering, loss of contrast, impaired color perception, diminished central visual acuity, or monocular diplopia, or both.
3. Extraocular motility defects due to strabismus or paresis may affect binocularity.
4. Defects of the iris and pupil include aniridia, polyco-
ria (either developmental, traumatic, or atrogenic),
fixed pupil and lack of pigmentation (as in albinism).
These conditions may cause photophobia, monocular
diplopia, or degradation of central vision.
5. Defects of cone (central) vision may cause inaccurate
or total loss of color perception and diminished cen-
tral visual acuity.
6. Defects of rod (peripheral) vision may cause reduced
or total inability to adapt to low levels of illumination
or complete or partial loss in peripheral vision, or
both.

¹Definitions of the terms describing visual impairments appear in the glossary.

7. Defects of the optic nerve pathways or occipital cortex may cause a loss of central vision, color vision defects, or loss in peripheral vision, including scotomata, quadrantanopsia, or hemianopsia. These defects may affect one or both eyes, depending on the site of the defect, and may or may not be symmetrical between the two eyes.
8. Other types of vision loss due to intraocular origin include retinoschisis, retinal detachment, choroiditis, or glaucoma. These types of pathology cause a loss in visual field or diminished central or peripheral vision.
9. Systemic diseases have numerous ocular manifestations that are as varied as the disease entities themselves. Types of systemic disease with ocular manifestations are diabetes, multiple sclerosis, vascular disease, and hydrocephalus.

Functional Vision Assessment

Visually impaired students need to learn to use their residual vision as efficiently as possible. To meet this need, the teacher of the visually impaired, in conjunction with the orientation and mobility specialist, should evaluate how the students use their vision to function within the school setting and in the community. Parents can also provide valuable information about their child's use of vision.

Given this assessment data and the information from the "Eye Report for Children with Visual Problems," those making the assessment prepare a functional vision checklist summary sheet, such as the one that appears in this appendix. This report contains recommendations for further assessment by an eye specialist, if needed.

From this assessment information, the teacher of visually impaired and the orientation and mobility specialist will train the student to adapt to the environment to maximize the functional use of vision. This adaptation will include:

- Control of lighting and glare factors
- Preferred field of view and best gaze posture (eccentric viewing)
- Adaptations of reading materials, such as print size, use of color, fatigue factors, time adjustments, and the use of auditory or braille media
- Training in the use of prescribed low vision aids, including telescopes for travel
- Recommendations for nonprescription aids, such as specialized paper, pens, reading stands, and adapted materials and appliances for specialized classes

The goal of the assessment is to enable the student to function as independently as possible within the school and community settings.

Additional areas to be included in a functional vision assessment are such considerations for orientation and mobility as:

1. Recognition of illumination: overhead, body level, windows, and artificial lighting
2. Gross object recognition: shape, size, size of room,

doorways, desks, chairs, tables, and objects that are at body level, overhanging, low, in front of, and to the side

3. Fine object and characteristic recognition: people, name and numbers on doors, books, typewriter, telephone, coffee cup, wall displays, chalkboard color, and writing on chalkboard
4. Contrast recognition: floor or wall, door or wall, door closed or opened, carpet or flooring, window or wall, bulletin board or wall, and chalkboard or wall (objects: dark on light, light on dark, light on light, and dark on dark)
5. Print recognition: print on chalkboard—white chalk, colored chalk, blackboard, greenboard, beigeboard, print on paper—dark print and light paper, light print and dark paper, colored paper and dark print, and maps, charts, and graphs
6. Color recognition: floor, wall, blackboard, greenboard, beigeboard, objects, clothing, maps, charts, and graphs
7. Depth perception: ascending stairs, descending stairs, drop-offs, stepups, inclines and declines, floor strips, and thresholds
8. Student in motion: line of travel; confidence; ability to locate doors and windows; recognition of intersecting hallways, travel through open doors; recognition of stairs, depth change, color and changes in contrast; avoidance of people, overhangs, low objects, and objects at side.²

Assessment by a Qualified Eye Specialist

An assessment by a fully qualified eye specialist should be performed to provide an understanding of the nature and extent of visual loss present. The following is a summary of the items needed in the eye specialist's report:

Detailed Case History

A detailed case history should include the following:

- Exploration of the etiology of vision loss, age at onset
- "Historical landmarks" in the disease process
- Eye preference
- Patient's present visual abilities and deficits
- Patient's visual rehabilitative desires
- Patient's concept of his or her goals (vocational, avocational, recreational, educational, daily living, and so forth)
- Past and present medical history
- Significant family medical history
- Patient's evaluation of environmental effects on vision (e.g., lighting)
- Stability of patient's vision (any recent changes)
- History of patient's use of visual or nonvisual aids
- Patient's motivation
- Patient's attitude

²Note: Additional evaluation of the student's use of residual vision outdoors should be carried out by the orientation and mobility specialist.

Visual Acuity Measurements

Distance visual acuity. Measure patient's distance vision with and without present correction(s) at a distance of ten feet. This distance may need to be shortened in cases of severe vision loss. If distance low vision aids are used, an assessment of visual acuity and efficiency in the use of an aid should be performed. An assessment of illumination effects should also be done.

Near visual acuity. Patient's near visual acuity should be measured with and without present correction at the reading distance the patient chooses. Both single and multiple digit acuities should be recorded, as well as the working distance. Testing with any low vision aids the patient presently has, as well as the effects of illumination, should be evaluated. If vocational aids are used, a measure of their acuity and efficiency should be done at the required working distance of the aid.

External Examination

An evaluation of the ability of the eyes to track together and maintain fixation should be performed. The areas involved in an external examination are discussed in the paragraphs that follow.

Evaluation of extraocular motility. If strabismus is present, magnitude and comitancy should be measured. Check for the patient's head tilt or rotation. If nystagmus is present, determine whether a change in amplitude occurs with a change in the direction of the patient's gaze or whether a latent component exists.

Pupillary reflexes. These can be used to rule out neurological problems or to detect strabismus; e.g., the Hirschberg Test. An estimation of the pupil's symmetry, size, shape, and position relative to the center of the cornea can be made. Transillumination of the iris should be performed to detect the degree of iris pigmentation present.

Color and stereopsis testing. Testing of color perception is the measurement of the eye's ability to discriminate various hues of color. Color perception can be tested using color plates and/or a Farnsworth type of test. Stereopsis can be evaluated, using a polaroid test (e.g., WIRT). If no stereopsis is present, gross fusion can be tested by anaglyph methods (e.g., the Worth Test). Patients should be allowed to hold the test at their best near working distance.

Keratometry. Keratometry is a measurement of curvature on the anterior surface of the cornea.

Retinoscopy. Retinoscopy is a method of objectively measuring refractive error by shining a light through the pupil and neutralizing its reflex with lenses. This procedure may need to be done at unusual working distances if hazy media or irregular refractive surfaces are present (radical retinoscopy).

Subjective Testing

Subjective testing is a method of measuring refractive error by evaluating a patient's response to changes in lens power. A trial frame and trial lenses should be used, rather than the refractor, to allow for eye or head movements. Testing by the "Just Noticeable Difference" (JND) method and a hand-held crossed cylinder should be done at a comfortable viewing distance for the patient. For patients with

strong prescriptions, an overrefraction may be performed with the use of Halberg Clips or similar devices. Visual acuity should be measured at the conclusion of the refraction, and testing of the effect of illumination on distance vision should be performed.

With the best distance refraction in place, testing with various powered spectacle-mounted telescopes and hand-held monoculars should be performed. Monocular stands can also be evaluated. A refinement of the trial frame refraction should also be performed with a telescope in place.

Near vision testing is performed after distance vision testing is concluded. A reasonable starting point would be to calculate the reciprocal of vision to determine the approximate amount of magnification required. Starting with this amount of magnification, various powered lenses are evaluated to provide relative distance magnification. For patients with a severe vision loss, microscopic lenses are also evaluated. Hand and stand magnifiers, loupes, closed circuit television, reading stands, illumination devices, and so forth are analyzed. If specific working distances are required, telemicroscopes, surgical telescopes, or alternative systems may be needed. Acuity should be measured with single and multiple digit print, as well as with the patient's desired reading material.

Testing with an artificial iris or pupil contact lenses for albinos or patients suffering from glare should be performed. Specially designed filters should be evaluated; e.g., NOIR or CPF. Various density and colored tints should be evaluated for both indoor and outdoor use. Visors, typoscopes, single or multiple pinholes, should also be considered, as well as devices to provide an increase in illumination.

Visual field defects can be ameliorated by the use of field expanders (hand-held or spectacle-mounted), Fresnel prisms, or hemianopic mirrors.

Patients with high refractive errors or nystagmus should be evaluated with contact lenses to determine whether a better visual result can be obtained. Patients with scarred or irregular corneal surfaces may benefit from contact lens fit or minification, or they may be used as a light filtering apparatus. Contact lenses may be used to provide magnification to transmit selectively particular wavelengths of light.

Objective Testing

The following are means of objective testing:

- Biomicroscopy and tonometry
- Ophthalmoscopy
- Visual field assessment—Central defects may be charted on an Amsler Grid or tangent screen, with a large fixation cross present. Peripheral fields are best assessed on an arc perimeter or "bowl type" visual field testing instrument.

Considerations in Prescribing Low Vision Aids

The following are to be considered by those prescribing low vision aids:

- Patient's goals, desires, and needs
- Working distances required

- Illumination requirements
- Field of view needed
- Age of patient
- Multiple aids
- Stability of vision
- Performance with various aids tested

Supplementary Low Vision Services and Needs

The following are supplementary low vision needs to be considered:

- Training of the patient in the use of low vision aids
- Monitoring the patient for a change in visual status

State Department of Education
Form #SE-04

Registration of Visually Handicapped Students, as of January 2, 19__

Check one: Public school Nonpublic school

Give code numbers from the California Public School Directory or from the California Private School Directory.

Name of the school district, office of the county superintendent of schools, or nonpublic school

Street address	City	ZIP	County
----------------	------	-----	--------

Name of authorized officer

Title

()

Address, if different from the central office

Telephone number

Date

Total number of legally blind students reported: _____

Total number of partially sighted students reported: _____

I certify that information contained in this registration is based on current eye report forms retained by this office. To establish eligibility for the American Printing House for the Blind Federal Quota Program, I further certify that this school system has filed with the Department of Education an Assurance of Compliance Statement, based on the Civil Rights Act of 1964.

Signature of Authorized Officer

Return this form to: Fred L. Sinclair, Director, Clearinghouse Depository for Handicapped Students, California State Department of Education, P.O. Box 944272, Sacramento, CA 94244-2720. The telephone number is (916) 445-5103.

CONFIDENTIAL

Eye Report for Children with Visual Problems

R L B

NAME OF PUPIL _____ SEX _____
(Type or print) (First) (Middle) (Last)

ADDRESS _____ DATE OF BIRTH _____
(No. and street) (City or town) (County) (State) (Month) (Day) (Year)

GRADE _____ SCHOOL _____ ADDRESS _____

I. HISTORY

- A. Probable age at onset of vision impairment. Right eye (O.D.) _____ Left eye (O.S.) _____
- B. Severe ocular infections, injuries, operations, if any, with age at time of occurrence _____
- C. Has pupil's ocular condition occurred in any blood relative(s)? _____ If so, what relationship(s)? _____

II. MEASUREMENTS (See back of form for preferred notation for recording visual acuity and table of approximate equivalents.)

A. VISUAL ACUITY	DISTANT VISION			NEAR VISION			PRESCRIPTION		
	Without correction	With best correction*	With low vision aid	Without correction	With best correction*	With low vision aid	Sph.	Cyl.	Axis
Right eye (O.D.)	_____	_____	_____	_____	_____	_____	_____	_____	_____
Left eye (O.S.)	_____	_____	_____	_____	_____	_____	_____	_____	_____
Both eyes (O.U.)	_____	_____	_____	_____	_____	_____	Date _____		

B. If glasses are to be worn, were safety lenses prescribed in: Plastic _____ Tempered glass _____ *with ordinary lenses

C. If low vision aid is prescribed, specify type and recommendations for use. _____

D. FIELD OF VISION: Is there a limitation? _____ If so, record results of test on chart on back of form.
What is the widest diameter (in degrees) of remaining visual field? O.D. _____ O.S. _____

E. Is there impaired color perception? _____ If so, for what color(s)? _____

III. CAUSE OF BLINDNESS OR VISION IMPAIRMENT

- A. Present ocular condition(s) responsible for vision impairment. (If more than one, specify all but underline the one which probably first caused severe vision impairment.)
O.D. _____
O.S. _____
- B. Preceding ocular condition, if any, which led to present condition, or the underlined condition, specified in A.
O.D. _____
O.S. _____
- C. Etiology (underlying cause) of ocular condition primarily responsible for vision impairment. (e.g., specific disease, injury, poisoning, heredity or other prenatal influence.)
O.D. _____
O.S. _____
- D. If etiology is injury or poisoning, indicate circumstances and kind of object or poison involved. _____

IV. PROGNOSIS AND RECOMMENDATIONS

- A. Is pupil's vision impairment considered to be: Stable _____ Deteriorating _____ Capable of improvement _____ Uncertain _____
- B. What treatment is recommended, if any? _____
- C. When is reexamination recommended? _____
- D. Glasses: Not needed _____ To be worn constantly _____ Far close work only _____ Other (specify) _____
- E. Lighting requirements: Average _____ Better than average _____ Less than average _____
- F. Use of eyes: Unlimited _____ Limited, as follows: _____
- G. Physical activity: Unrestricted _____ Restricted, as follows: _____

TO BE FORWARDED BY EXAMINER TO:

Date of examination _____
 Signature of examiner _____ Degree _____
 Address _____
 If clinic case: Number _____ Name of clinic _____

Preferred Visual Acuity Notations

DISTANT VISION. Use Snellen notation with test distance of 20 feet. (Examples: 20/100, 20/60). For acuities less than 20/200 record distance at which 200 foot letter can be recognized as numerator of fraction and 200 as denominator. (Examples: 10/200, 3/200). If the 200 foot letter is not recognized at 1 foot record abbreviation for best distant vision as follows:

- HM HAND MOVEMENTS (Specify inches or feet)
- PLI PERCEIVES AND LOCALIZES LIGHT IN ONE OR MORE QUADRANTS
- LP PERCEIVES BUT DOES NOT LOCALIZE LIGHT
- No LP NO LIGHT PERCEPTION

NEAR VISION. Use standard A.M.A. notation and specify best distance at which pupil can read. (Example: 14/70 at 5 in.)

TABLE OF APPROXIMATE EQUIVALENT VISUAL ACUITY NOTATIONS

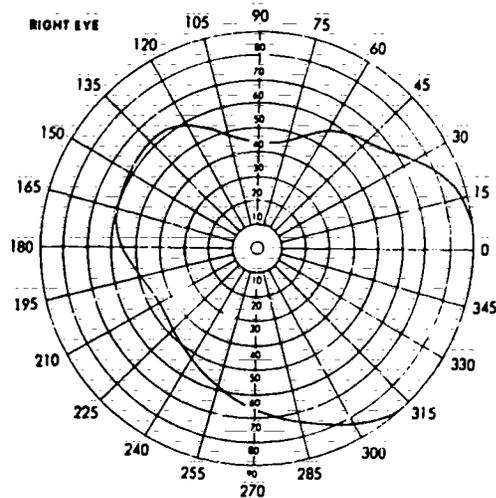
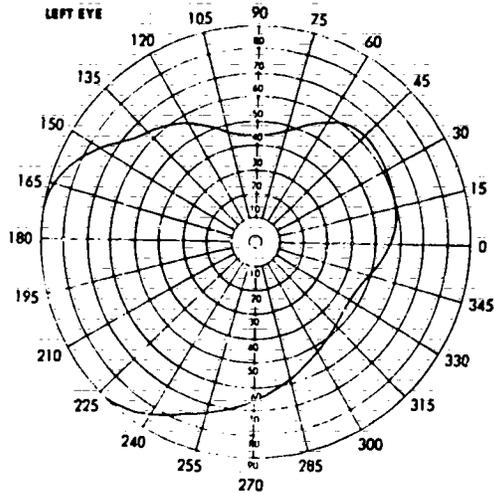
These notations serve only as an indication of the approximate relationship between recordings of distant and near vision and point type sizes. The teacher will find in practice that the pupil's reading performance may vary considerably from the equivalents shown.

Distant Snellen	Near			% Central Visual Efficiency for Near	Point	Usual Type Text Size
	A.M.A.	Jaeger	Metric			
20/20 (ft.)	14/14 (in.)	1	0.37 (M.)	100	3	Mail order catalogue
20/30	14/21	2	0.50	95	5	Wont ads
20/40	14/28	4	0.75	90	6	Telephone directory
20/50	14/35	6	0.87	50	8	Newspaper text
20/60	14/42	8	1.00	40	9	Adult text books
20/80	14/56	10	1.50	20	12	Children's books 9-12 yrs
20/100	14/70	11	1.75	15	14	Children's books 8-9 yrs.
20/120	14/84	12	2.00	10	18	Large type text
20/200	14/140	17	3.50	2	24	
12.5/200	14/224	19	6.00	1.5		
8/200	14/336	20	8.00	1		
5/200	14/560					
3/200	14/900					

FIELD OF VISION: Record results on chart below.

Type of test used: _____

Illumination in ft. candelas: _____



Test object: Color(s) _____ Size(s) _____

Test object: Color(s) _____ Size(s) _____

Distance(s): _____

Distance(s): _____

Used with permission from the Northern California Society to Prevent Blindness, 4200 California St., Suite 101, San Francisco, CA 94118.

Educationally Oriented Vision Report
(To be completed by the eye specialist)

Date: *Month* *Day* *Year* Student's name: *Last* *First* *Middle*

The following information would be helpful in determining educational programming based on the needs of the student. We would appreciate your completing this form in addition to the "Eye Report for Children with Visual Problems."

1. What is the cause of visual impairment?

2. Is any special treatment required? If so, what is the general nature of the treatment?

3. Is the visual impairment likely to get worse, better, or stay the same?

4. What symptoms would indicate a need for reexamination?

5. Should any restrictions be placed on the student's activities?

6. Should the student wear glasses or contact lenses? If so, under what circumstances?

7. If it was not possible to do a visual acuity measure, what is your opinion regarding what the student sees?

8. Are the student's focusing ability, tracking, and eye muscle balance adequate? If not, please describe:

9. If the student's visual field was not testable, what is your opinion regarding this student's field of vision?

10. Please describe the object size and distances that are optimal for the student:

11. What lighting conditions would be optimal for the student's visual functioning?

12. Do you have any additional specific recommendations concerning this student's use of vision in learning situations?

13. When should this student be examined again?

Please return this form to:

Functional Vision Checklist Summary Sheet

Date: _____

Student: _____ Age: _____ Grade: _____ School: _____

Teacher of the visually impaired: _____ Telephone number: () _____

Physical Information

Nature of the eye condition (describe in simple terms): _____

Educational implications of the eye condition: _____

Glasses prescribed: _____ To be worn: _____

Describe prescription (bifocal, aphakic, contact lens):¹ _____

Acuity—near vision: _____ Field: _____

Acuity—far vision: _____ Color vision: _____

Preferred eye: _____ Student is/is not binocular: _____

Preferred field of view: _____ Best gaze posture, if any: _____

Photophobia: _____ Sunshade prescribed: _____

Classroom Modifications—Distance Vision

Student can use:

Overhead projectors: _____ Flipcharts: _____

Filmstrips: _____ Flash cards: _____

Television: _____ Wall clock: _____

Chalkboard: Student should be seated:

In front row: _____ Right front: _____ Left front: _____ Other: _____

Distance aids used: _____

¹Definitions of terms related to visual impairment appear in the glossary.

Time adjustments (such as extra time to copy from chalkboard): _____

Classroom Modifications—Near Tasks

1. Reading

Optimum reading time: _____

Student prefers to improve visual functioning by (finger pointing, marker, and so forth):

Student's grade level for reading print: _____

Print size: Reading: _____ Mathematics: _____

Activity books: _____ Ditto papers: _____

Dictionary: _____ Other: _____

Adaptations of reading materials: _____

2. Near Vision Aids

Use of optical aids: _____

Reading stand: _____ Marking pen: _____ Writing paper: _____

Typoscope marker: _____ Ditto filters: _____

Closed-Circuit Television (CCTV)

Best magnification: _____ Polarity: _____ Reading distance: _____

Special lighting required: _____

Auditory (listening) program: _____

Student's grade level for auditory reading: _____

Type of classwork to be read to the student: _____

California School for the Blind

This appendix contains information about the California School for the Blind in Fremont. This program's purpose and its referral and admission procedures, as well as the residential policy, are discussed.

Purpose of the Program

The California School for the Blind (CSB) is a state-funded and operated residential facility that provides an educational alternative for visually impaired, multihandicapped students throughout California, when appropriate. The goal of the program is to foster the mastery of skills commensurate with the individual student's ability. This program includes communication, cognition, self-help, pre-vocational/vocational education, orientation and mobility, motor development, and auditory and visual training. An emphasis is placed on social skills and the development of a positive self-image.

When appropriate, students receive instruction that will enable them to:

- Live independently in an on-campus apartment.
- Experience activities in the world of work through placement in a variety of work settings.
- Develop skills and demonstrate progress by mainstreaming into a functionally appropriate grade level in a local school district.

Guidelines for Enrollment

The discussion in the following paragraphs about guidelines for enrollment examines the referral process and criteria for referral of students to the California School for the Blind.

Referral Process

Priority for admission to the California School for the Blind (CSB) will be given to students residing in sparsely populated regions of the state. Enrollment of a student will occur when it has been demonstrated that an appropriate educational placement is not available in the student's geographical area of residence.

A potential student for CSB must be referred by the individualized education program team of the school district where the student resides. On receipt of the referral, the staff at CSB will make a request for all records of the student being referred. (Note: A current district individualized education plan must be part of the records forwarded to CSB for review.) An admissions committee will review the records, on receipt, and recommend the following to the superintendent of CSB:

- Acceptance of the referred student for enrollment at CSB
- Rejection of the referred student for enrollment at CSB with a written explanation or
- A trial period at CSB to determine appropriateness of placement for the student

The student's district of residence and the parent or guardian will be notified of the approved recommendation by the superintendent of the California School for the Blind. (Note: If either the school district of residence or the parent or guardian disagrees with the decision made by the admissions team and the superintendent of the California School for the Blind, due process may be initiated.)

Criteria for Referral

A student referred to the California School for the Blind shall meet the criterion that the primary handicapping condition is a significant visual impairment (see Appendix F). The kinds of visual impairments are defined as follows:

- *Visually handicapped* means a visual impairment that, even with correction, adversely affects a child's educational performance. The term includes both partially seeing and blind children (PL 94-142, CFR 300a.5[b][2]).
- *Deaf-blind* means concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational problems that they cannot be accommodated in special education programs solely for deaf or blind children (PL 94-142, CFR 300a.5[b][1]).
- *Deaf* means a hearing impairment that is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, [a condition] which adversely affects a child's educational performance (PL 94-142, CFR 300a.5[b][3]).
- *Hard of hearing* means a hearing impairment, whether permanent or fluctuating, which adversely affects a child's educational performance but not personal relationships with peers, teachers, or others (PL 94-142, CFR 300a.5[b][5]).
- *Visually handicapped/multihandicapped* means concomitant impairments, such as a physical handicap; learning handicap, including mental retardation; or communication disorder. The combination of these impairments causes such severe educational problems that the student cannot be accommodated in special

education programs that exist solely for one of the impairments. The term does not include deaf-blind children. To qualify as a visually handicapped/multihandicapped student, a child must have a visual impairment as one of the handicapping conditions.

A student's eligibility for admission to the California School for the Blind shall be determined when the following general requirements have been met:

- The parents or legal guardians are determined to be residents of California, or the requirements of *Education Code* sections 59031 or 59032 are met for nonresidents.
- The applicant student is of appropriate age for admission to the California State School for the Blind.
- The LEA has a current individualized education program that lists the student's placement, educational needs, and related services requirements, as well as the assessment reports (including medical) on which the individualized education program is based.
- It has been determined that no appropriate local program exists.

Residential Policy

Students residing in school districts that provide daily transportation to and from California schools for the deaf and blind (as mandated by *Education Code* sections 59030 and 59124) shall be day students, except that travel between the time of pickup to drop-off at the state special school shall not exceed 60 minutes. Day students are eligible to participate in social and extracurricular activities (sponsored and/or supervised by either educational staff or residential staff). Participation in social and/or extracurricular activities will not be a valid reason for residential placement of a day student.

If a day student's individualized education program calls for objectives related to independent living or apartment living, which can only be accomplished through the residential program, then the student shall be a residential student. However, this criterion may not be interpreted to require substantial modifications in the residential program, since this program is designed to provide only residential facilities for students whose place of residence is outside the area for day students as defined previously.

State Hospital Programs

This appendix contains information about the services offered by California state hospital programs, referral procedures, and residential policies.

Developmental Services Programs

The California State Department of Developmental Services operates a number of state hospitals that provide developmental programs for multihandicapped blind children and adults with severe and profound disabling conditions that preclude these individuals from receiving proper treatment or training in their home community. Four of the state hospitals provide programs that specialize in training residents who have a visual impairment as a significant handicap. These facilities provide a continuous training program in a residential setting on a 24-hour basis. Each residential program is planned, implemented, and evaluated by an interdisciplinary team. The ultimate objective of such programs is to enable the multihandicapped visually impaired resident to realize his or her maximum potential in the areas of orientation and mobility, self-help skills, communication, and prevocational skills. The long-term objective, when appropriate, is to return the resident to the community either in his or her own home environment or in a foster or group home setting.

Referral of Residents

Residents are referred to the state hospital from their local communities through one of the 21 California Regional Centers for the Developmentally Disabled. Before admission occurs, either for a short-term or long-range program, staff from the regional center must have explored all community programs and determined that no other appropriate facilities are available in the community to meet the needs of the individual. An agreement (the individualized program plan [IPP]) is developed with the regional center and updated annually, establishing the objectives for this resident and indicating that placement in the community will occur when the resident has made sufficient progress toward the established goals and when an appropriate facility is available.

To be referred to the state hospital training program for visually impaired, the resident must have a severe to profound developmental disability and a significant visual impairment.

Residential Policies

Educational planning in the Department of Developmental Services is done in accordance with state and federal

laws and regulations. Staff members from the county office of education participate in all educational planning for students under the age of twenty-two. The least restrictive environment is selected from a continuum of educational placements and determined by the interdisciplinary team at the time the individualized education program is developed.¹ A continuum of services may include:

- A class in the unit where the student lives, with an appropriately credentialed teacher providing service for the amount of time specified and agreed on at the IEP conference (This placement is used for behavior or medical conditions so severe that off-unit educational placement is inappropriate.)
- A class located on state hospital grounds that is self-contained (The student travels to and from class with an escort.)
- A self-contained class in the community operated by the county office of education for residents in state hospitals

¹The Interdisciplinary Team (IDT) is a multidisciplinary team that meets to review all goals, objectives, and plans for that student or resident. This team includes the regional center representative, parents, ancillary personnel, and a representative from a district, county, or SELPA.

- A self-contained class in the community operated by the county office of education serving both state hospitals and community students
- A class operated by the county office of education to serve handicapped and nonhandicapped students

No matter where the student is placed on the continuum, the state hospital continues to be responsible for providing the necessary transportation and health-related and other services, as specified by the individualized education program team. These services may include comprehensive vision screening, orientation and mobility assessment, program implementation, special sensory/motor programming, speech and language development, and physical therapy, as well as additional services of the psychologist, social worker, and medical personnel.

State hospitals must provide a full range of services provided by staff with the appropriate licenses or credentials to serve the visually impaired.

Involvement of parents and students in the IEP process is promoted. Parents, by policy, may visit state hospitals at any time and are encouraged to take the student home as often as possible.

Sources of Funding and Materials and Equipment

Information about funding provisions appears in this appendix. The topics addressed are funding for program options, low vision assessments and low vision aids, funding for materials and equipment, and sources of materials and equipment. Funding provisions for all special education programs are found in Part 30, Chapter 7 of the *Education Code*, commencing with *Education Code* Section 56700.

Funding for Program Options

Legislation that provides funding for the various program options for students with visual impairments is listed as follows:

- Public school programs—*Education Code* Section 56364.1 (see Appendix F) provides the flexibility for local educational agencies to fund itinerant teachers, resource rooms, self-contained classrooms, and program options which are described in Chapter Five in this publication. Other funding options may also be used, depending on local needs. The State Department of Education should be contacted for technical assistance.
- State hospitals—See Part 30, Chapter 8, of the *Education Code*, commencing with Section 56850, and "Concurrent Enrollment in Special Classes and in the Regular Classroom," Chapter 4, Article 4, Section 56364.1.
- California School for the Blind—See *Education Code* sections 59300 and 56367.
- Private schools and agencies—See Part 30, Chapter 7, of the *Education Code*, sections 56740 through 43, and Chapter 4, Section 56365.

Low Vision Assessments and Low Vision Aids

Low vision assessments and nonprescriptive low vision aids are funded in the same way as any other assessment or equipment. Additional funding sources, particularly for prescriptive low vision aids (which are not funded by the local educational agency), are:

- California Children Services
- The California State Department of Rehabilitation
- Insurance coverage by the parent
- Medi-Cal
- Regional centers
- Service organizations, particularly local Lions International clubs, whose national charity is the blind, and Kiwanis International clubs, whose national charity is youth

Funding for Materials and Equipment

Local budgets must include sufficient funds for providing expensive books, equipment, and materials for visually impaired students. When funds received for special education are allocated, it is the intent of the Legislature that, to the extent funding is available, school districts and offices of the county superintendent of schools shall give first priority to expenditures to provide specialized books, materials, and equipment that are necessary and appropriate for the individualized education programs of visually impaired students, up to a maximum of five hundred dollars per visually impaired student. (See Appendix F for legal requirements.)

State funding is available to purchase and coordinate the use of specialized equipment and materials for pupils with low incidence disabilities. Yearly entitlements are computed and allocated on a per capita basis, using the December unduplicated pupil counts of SELPAs for students in the following categories: hard of hearing, deaf, visually handicapped, orthopedically impaired, and deaf-blind. This entitlement is allocated at the SELPA level. Each responsible local agency of a SELPA needs to ensure that appropriate materials and equipment are purchased, as required under the individualized education program, coordinated, and reassigned as necessary. (See Appendix F for legal requirements.)

For information about current equipment costs, the following chart is provided:

Average Local Educational Agency Costs for a Sample of Basic Materials and Equipment (as of 1985)

Braille materials (yearly per student)	\$ 523
Large-print materials (yearly per student)	520
Closed-circuit television system	2,600
Large-print typewriter	400
Magnifying devices	25 - 65
Orientation and mobility cane	20
Paperless brailler	6,000

One source of funding for materials and equipment for legally blind students is the American Printing House for the Blind Federal Quota Program, administered by the Clearinghouse Depository for Handicapped Students, a unit of the State Department of Education. Before purchasing materials and equipment, one should check with the Clearinghouse Depository to see whether the equipment is available from another source. Program planners may also wish to contact the Clearinghouse Depository before purchasing new equipment and materials to ascertain their usefulness and cost effectiveness.

Local service clubs and other community groups may help to provide funds for equipment and materials when no other funding source is available.

Sources of Materials and Equipment

Sources for materials and equipment that are examined in the paragraphs that follow are the Clearinghouse Depos-

itory for Handicapped Students and its Aural Media Services, the American Printing House for the Blind, Federal Quota Program, National Library Services, the Office of Curriculum Framework and Textbook Development, and other sources.

The Clearinghouse Depository for Handicapped Students

The Clearinghouse Depository for Handicapped Students (CDHS), a unit within the Office of State Special Schools and Services, Division of Special Needs, California State Department of Education, offers services to all handicapped students enrolled in public and qualified nonpublic schools, colleges, and universities in California (see *Education Code* sections 60313 and 60314). The CDHS assists school personnel and students with the procurement of books in braille, large print, recorded form, and other specialized aids and equipment. As a depository, the CDHS houses and distributes books in special media, equipment, and instructional aids of many kinds required by handicapped students. As a clearinghouse, the CDHS identifies sources from which schools and colleges may obtain other such items by purchase, through exchange, or on loan. The CDHS produces recorded books through its Aural Media Services and coordinates the production of new materials in all special media, utilizing the resources of volunteer and commercial organizations. Also, the CDHS assists with the acquisition of elementary textbooks in braille and large type adopted by the State Board of Education.

The CDHS provides consultant services, such as in-service training workshops for educators in the selection and use of study materials in special media for handicapped students, professional assistance in the development and evaluation of programs and curricula for handicapped students in the use of special media, and in-service training for school-employed and volunteer transcribers in the production of materials in special media. Publications available are *A List of California Transcribers*¹ and *Resources for Visually Handicapped Students*.²

The CDHS administers the American Printing House for the Blind Federal Quota Program that provides instructional materials in special media, educational aids, and equipment for use by blind students of all ages in formal school programs below the college level.

The state retains title to materials secured by schools with state and federal funds. These materials may be reassigned by the CDHS (as they become surplus) among schools to meet the changing needs of handicapped students (see *Education Code* Section 56822).

First class mail should be addressed to: The Clearinghouse Depository for Handicapped Students, California State Department of Education, P.O. Box 944272, Sacramento, CA 94224-2720. However, all parcel post items should be directed to: The Clearinghouse Depository for

¹This annually updated list is available from the Clearinghouse Depository of Handicapped Students, P.O. Box 944272, Sacramento, CA 94244-2720.

²*Resources for Visually Handicapped Students*. Los Angeles: California Transcribers and Educators of the Visually Handicapped (CTEVH) Publications, 1980.

Handicapped Students, 1025 P Street, Basement, Sacramento, CA 95814-4785. Parcel post items may be shipped as "Free Matter for the Blind and Physically Handicapped." Persons needing further assistance may telephone (916) 445-5103 or (916) 445-1290.

Aural Media Services

Students in public and private schools and colleges in California who are unable to read conventionally printed materials can be provided with recorded materials through the Aural Media Services of the Clearinghouse Depository for Handicapped Students (CDHS/AMS). Instructional materials are read, recorded, and stored in the Master Tape Library (MTL), a part of the AMS. Duplications are made through another division of the AMS, the Tape Duplication Center, on cassettes, as requested by teachers. (Detailed instructions for ordering duplicates are given in the *Master Tape Library Catalog*.)³

To request a *Master Tape Library Catalog*, Tape Duplication Center order blanks, or additional information regarding CDHS/AMS, one should contact: Aural Media Services of CDHS, California State Department of Education, P.O. Box 944272, Sacramento, CA 94244-2720; telephone (916) 445-1290.

American Printing House for the Blind Federal Quota Program

Each year the Congress appropriates a specific sum of money to the American Printing House for the Blind (APH) for use in developing and supplying books in special media, as well as specialized aids and equipment for educating blind students in the nation. States may acquire materials and equipment from APH without cost up to the amounts of their federal quota allocation.

In California the APH Federal Quota Program is administered by the Clearinghouse Depository for Handicapped Students (CDHS). During January of each year, the CDHS conducts registration of blind students in California to establish the state's proportional credit allotment with APH. Although the allotment is made to the state, the California allotment from the annual federal quota appropriation is apportioned to school districts, offices of county superintendents of schools, state hospitals, and private schools on the basis of the number of blind students registered in their educational programs.

To acquire materials on APH Federal Quota accounts, staff from schools in California must send their orders (on forms provided for this purpose) to CDHS, where the orders are approved and forwarded to APH. Following the receipt of orders approved by CDHS, APH will make shipment directly to the school unless otherwise instructed.

All items provided to schools in California through the Federal Quota Program are by law property of the state and are subject to recall and redistribution by CDHS.

National Library Services

Reading materials for the blind and physically handicapped are provided by the U.S. government through the

National Library Services for Blind and Physically Handicapped, Library of Congress, and are made available through 54 regional branch libraries. The California State Library serves northern California as one of these regional libraries. The Braille Institute of America, a private agency, serves as southern California's regional library. The federal government supplies the materials, and each agency provides housing and library staff that administer the program.

Braille books may be borrowed by any visually handicapped person on request to the regional libraries. Talking books and cassette tapes may be borrowed by any person who has been certified as being unable to handle or read conventional print materials because of a visual or physical handicap and who has the proper equipment (also available through the National Library Service) on which to play the records and tapes. Catalogs of braille books, records, and tapes are furnished so that the applicant may make selections. The regional libraries will select books, if requested, for those who do not care to make their own selections.

In addition to an extensive collection maintained for adults, a very fine collection of books in braille and on talking book records is available for children. Also, many titles are available that are suitable for use by young adults, both for recreational reading and as reading required for courses of study.

This library service is free to blind and physically handicapped readers. The books are sent postage free to the borrower and are returned in the same manner.

The lending period is five weeks. Each braille volume, talking book, or tape container must be returned as soon as it has been finished. When that volume or container is received at the library, another one is sent in return. In this manner the reader always has something on hand to read.

Talking book machines and cassette players are available on loan following the completion of an application processed through the regional library and for as long as the reader uses the service.

The address for the Braille Institute of America, the southern California regional branch, is Braille Institute of America, 741 N. Vermont Ave., Los Angeles, CA 90029; telephone (800) 252-9486 (toll free) or 213-663-1111. The address for the State Library, the northern California regional branch, is Books for the Blind and Physically Handicapped, 600 Broadway, Sacramento, CA 95818; telephone (800) 952-5666 (toll free) or (916) 322-4090.

Local public librarians can provide additional information regarding the services and procedures to be followed.

Office of Curriculum Framework and Textbook Development

Legislative mandate requires the State Board of Education to provide adopted textbooks in braille and large type to elementary school pupils whose visual impairment makes the use of such books necessary (see *Education Code* Section 60312). Titles requisitioned in numbers sufficient and feasible for commercial production are distributed through the Office of Curriculum Framework and Textbook Development, Braille and Large-Print Desk, California State Department of Education, P.O. Box 944272, Sacramento, CA 94244-2720; telephone (916) 322-0935.

³*Master Tape Library Catalog*. Sacramento: California State Department of Education, 1984.

The braille editions of these textbooks may be requisitioned by county and district offices directly from the Office of Curriculum Framework and Textbook Development on forms provided by that office. The large-type editions may be requisitioned by districts with enrollments of 40,000 and over and by county offices directly from the Office of Curriculum Framework and Textbook Development. Districts with enrollments of fewer than 40,000 must order large-type editions through their office of the county superintendent of schools.

At the end of each school year, excess current books in braille and large type, as reported on the school requisition forms, must be returned by mail to the Textbook Warehouse, 401 N. Third Street, Sacramento, CA 95814-0225. Books that have become obsolete during the year may be retained within the school system or disposed of through procedures for the disposal of regular-print textbooks.

Other Sources for Equipment and Materials

Other sources for materials and equipment are listed as follows:

A catalog of publications, aids, and equipment is available without charge from:

American Foundation for the Blind
15 W. 16th St.
New York, NY 10011
(212) 620-2000

The following organization is a major source of recorded textbooks for high school and college levels:

Recording for the Blind, Inc.
20 Rozel Rd.
Princeton, NJ 08540
(609) 452-06066

Books not already recorded may be recorded on request to a regional studio. (A catalog is available for a fee.) Studios are located in California at the following addresses:

Recording for the Blind
5022 Hollywood Blvd.
Los Angeles, CA 90027
(213) 664-5525

Recording for the Blind
McAlister Center
Claremont Colleges
9th and Columbia
Claremont, CA 91711
(714) 624-4156

Recording for the Blind
488 W. Charleston Rd.
Palo Alto, CA 94306
(415) 493-3717

Recording for the Blind
3970 La Colina Rd.
Santa Barbara, CA 93110
(805) 687-6393

Legal Requirements and Reference Directory

(As of June, 1986)

This appendix contains pertinent sections from the *California Administrative Code, Title 5, Education* and the *Education Code* that apply to the content of this publication. These legal requirements were current as of June, 1986. The purpose of this appendix is to give readers an opportunity to review legislative provisions for which citations appear throughout this publication.

Eligibility Criteria for the Visually Impaired

California Administrative Code, Title 5, Education, Section 3030

(d) A pupil has a visual impairment which, even with correction, adversely affects a pupil's educational performance.

Credentialing

Education Code Section 44265.5

(a) Pupils who are visually handicapped shall be taught by teachers who are credentialed pursuant to subdivision (e) of Section 44265. (This section refers to the Specialist in Special Education Credential for teachers of the blind and partially seeing.)

Low-Incidence Disabilities Definitions

Education Code Section 56000.5

The Legislature finds and declares that:

(a) Pupils with low-incidence disabilities, as a group, make up less than 1 percent of the total statewide enrollment for kindergarten through grade 12.

(b) Pupils with low-incidence disabilities require highly specialized services, equipment, and materials.

Education Code Section 56026.5

"Low-incidence disability" means a severe handicapping condition with an expected incidence rate of less than one percent of the total statewide enrollment in kindergarten through grade 12. For purposes of this definition, severe handicapping conditions are hearing impairments, vision impairments, and severe orthopedic impairments, or any combination thereof.

Qualified Staff

Education Code Section 56001

It is the intent of the Legislature that special education programs provide all of the following:

(n) Appropriate qualified staff are employed, consistent with credentialing requirements, to fulfill the responsibilities of the local plan and that positive efforts to employ qualified handicapped individuals are made.

Guidelines/Technical Assistance/Monitoring

Education Code Section 56136

The superintendent shall develop guidelines for each low-incidence disability area and provide technical assistance to parents, teachers, and administrators regarding the implementation of the guidelines. The guidelines shall clarify the identification, assessment, planning of, and the provision of, specialized services to pupils with low-incidence disabilities. The superintendent shall consider the guidelines when monitoring programs serving pupils with low-incidence disabilities pursuant to Section 56825. The adopted guidelines shall be promulgated for the purpose of establishing recommended guidelines and shall not operate to impose minimum state requirements.

Directories of Public and Private Agencies

Education Code Section 56137

The superintendent shall develop, update every other year, and disseminate directories of public and private agencies providing services to pupils with low-incidence disabilities. The directories shall be made available as reference directories to parents, teachers, and administrators. The directories shall include, but need not be limited to, the following information:

- (a) A description of each agency providing services and program options within each disability area.
- (b) The specialized services and program options provided, including infant and preschool programs.
- (c) The number of credentialed and certificated staff providing specialized services.
- (d) The names, addresses, and telephone numbers of agency administrators or other individuals responsible for the programs.

Compliance Assurances/Description and Services

Education Code Section 56200

Each local plan submitted to the superintendent under this part shall contain all the following:

- (a) compliance assurances, including general compliance with Public Law 94-142, Section 504 of Public Law 95-112, and the provisions of this part.
- (b) Description of services to be provided by each district and county office. Such description shall demonstrate that all individuals with exceptional needs shall have access to services and instruction appropriate to meet their needs as specified in their individualized education programs.

Local Plan Agreements

Education Code Section 56220

In addition to the provisions required to be included in the local plan pursuant to Section 56200, each special education services region that submits a local plan pursuant to subdivision (b) of Section 56170 and each county office that submits a local plan pursuant to sub-

division (c) of Section 56170 shall develop written agreements to be entered into by entities participating in the plan. Such agreements need not be submitted to the superintendent. These agreements shall include, but not be limited to, the following:

- (a) A coordinated identification, referral, and placement system pursuant to Chapter 4 (commencing with Section 56300).
- (b) Procedural safeguards pursuant to Chapter 5 (commencing with Section 56500).
- (c) Regionalized services to local programs, including, but not limited to, all the following:
 - (1) Program specialist service pursuant to Section 56368.
 - (2) Personnel development, including training for staff, parents, and members of the community advisory committee pursuant to Article 3 (commencing with Section 56240).
 - (3) Evaluation pursuant to Chapter 6 (commencing with Section 56600).
 - (4) Data collection and development of management information systems.
 - (5) Curriculum development.
 - (6) Provision for ongoing review of programs conducted, and procedures utilized, under the local plan, and a mechanism for correcting any identified problem.
- (d) A description of the process for coordinating services with other local public agencies which are funded to serve individuals with exceptional needs.
- (e) A description of the process for coordinating and providing services to individuals with exceptional needs placed in public hospitals, proprietary hospitals, and other residential medical facilities pursuant to Article 5.5 (commencing with Section 56167) of Chapter 2.
- (f) A description of the process for coordinating and providing services to individuals with exceptional needs placed in licensed children's institutions and foster family homes pursuant to Article 5 (commencing with Section 56155) of Chapter 2.
- (g) This section shall become operative July 1, 1982.

Education Code Section 56221

- (a) Each entity providing special education under this part shall adopt policies for the programs and services it operates, consistent with agreements adopted pursuant to subdivision (b) or (c) of Section 56170, or Section 56220. The policies need not be submitted to the superintendent.
- (b) Such policies shall include, but not be limited to, all of the following:
 - (5) Transportation, where appropriate, which describes how special education transportation is coordinated with regular home-to-school transportation. The policy shall set forth criteria for meeting the transportation needs of special education pupils.

Staff Development

Education Code Section 56240

Staff development programs shall be provided for regular and special education teachers, administrators, certificated and classified employees, volunteers, community advisory committee members and, as appropriate, members of the district and county governing boards. Such programs shall be coordinated with other staff development programs in the district, special education services region, or county office, including school level staff development programs authorized by state and federal law.

Identification and Referral

Education Code Section 56300

Each district, special education services region, or county office shall actively and systematically seek out all individuals with exceptional needs, ages 0 through 21 years, including children not enrolled in public school programs, who reside in the district or are under the jurisdiction of a special education services region or a county office.

Education Code Section 56301

Each district, special education services region, or county office shall establish written policies and procedures for a continuous child-find system which addresses the relationships among identification, screening, referral, assessment, planning, implementation, review, and the triennial assessment. Such policies and procedures shall include, but need not be limited to, written notification of all parents of their rights under this chapter, and the procedure for initiating a referral for assessment to identify individuals with exceptional needs.

Education Code Section 56302

Each district, special education services region, or county office shall provide for the identification and assessment of an individual's exceptional needs, and the planning of an instructional program to best meet the assessed needs. Identification procedures shall include systematic methods of utilizing referrals of pupils from teachers, parents, agencies, appropriate professional persons, and from other members of the public. Identification procedures shall be coordinated with school site procedures for referral of pupils with needs that cannot be met with modification of the regular instructional program.

Education Code Section 56303

A pupil shall be referred for special educational instruction and services only after the resources of the regular education program have been considered and, where appropriate, utilized.

Assessment/Low Vision Assessment

Education Code Section 56320

(f) The pupil is assessed in all areas related to the suspected disability, including, where appropriate, health

and development, vision, including low vision, hearing, motor abilities, language function, general ability, academic performance, self-help, orientation and mobility skills, career and vocational abilities and interests, and social and emotional status. A developmental history is obtained, when appropriate. For pupils with residual vision, a low vision assessment shall be provided in accordance with guidelines established pursuant to Section 56136.

Persons Conducting the Assessment

Education Code Section 56320

(g) The assessment of a pupil, including the assessment of a pupil with a suspected low-incidence disability, shall be conducted by persons knowledgeable of that disability. Special attention shall be given to the unique educational needs, including, but not limited to, skills and the need for specialized services, materials, and equipment consistent with guidelines established pursuant to Section 56136.

Assessment Report

Education Code Section 56327

The personnel who assess the pupil shall prepare a written report, or reports, as appropriate, of the results of each assessment. The report shall include, but not be limited to, all the following:

(h) The need for specialized services, materials, and equipment for pupils with low-incidence disabilities consistent with guidelines established pursuant to Section 56136.

Visual Perceptual/Visual Motor Dysfunction

Education Code Section 56338

As used in Section 56337, "specific learning disability" includes, but is not limited to, disability within the function of vision which results in visual perceptual or visual motor dysfunction.

Individualized Education Program

Education Code Section 56345

(b) When appropriate, the individualized education program shall also include, but not be limited to,

(7) For pupils with low-incidence disabilities, specialized services, materials, and equipment, consistent with guidelines established pursuant to Section 56136.

Program Options

Education Code Section 56360

Each district, special education services region, or county office shall ensure that a continuum of program options is available to meet the needs of individuals with exceptional needs for special education and related services.

Designated Instruction and Services

Education Code Section 56363

(a) Designated instruction and services as specified in the individualized education program shall be available when the instruction and services are necessary for the pupil to benefit educationally from his or her instructional program. The instruction and services shall be provided by the regular class teacher, the special class teacher, or the resource specialist if the teacher or specialist is competent to provide such instruction and services and if the provision of such instruction and services by the teacher or specialist is feasible. If not, the appropriate designated instruction and services specialist shall provide such instruction and services. Designated instruction and services shall meet standards adopted by the board.

(b) These services may include, but are not limited to, the following:

- (1) Language and speech development and remediation.
- (2) Audiological services.
- (3) Orientation and mobility instruction.
- (4) Instruction in the home or hospital.
- (5) Adapted physical education.
- (6) Physical and occupational therapy.
- (7) Vision services.
- (8) Specialized driver training instruction.
- (9) Counseling and guidance.
- (10) Psychological services other than assessment and development of the individualized education program.
- (11) Parent counseling and training.
- (12) Health and nursing services.
- (13) Social worker services.
- (14) Specially designed vocational education and career development.
- (15) Recreation services.
- (16) Specialized services for low-incidence disabilities, such as readers, transcribers, and vision and hearing services.

Integrated Special Classes/Instruction

Education Code Section 56364.1

Notwithstanding the provisions of Section 56364, pupils with low-incidence disabilities may receive all or a portion of their instruction in the regular classroom and may also be enrolled in special classes taught by appropriately credentialed teachers who serve these pupils at one or more school sites. The instruction shall be provided in a manner which is consistent with the guidelines adopted pursuant to Section 56136 and in accordance with the individualized education program.

Funding Specialized Books, Materials, and Equipment

Education Code Section 56739

(a) When allocating funds received for special education pursuant to this article, it is the intent of the Legislature that, to the extent funding is available, school districts and county offices shall give first priority to

expenditures to provide specialized books, materials, and equipment which are necessary and appropriate for the individualized education programs of pupils with low-incidence disabilities, up to a maximum of five hundred dollars (\$500) per pupil with low-incidence disability. Nothing in this subdivision shall be construed to prohibit pooling the prioritized funds to purchase equipment to be shared by several pupils.

(b) Equipment purchased pursuant to this section shall include, but not necessarily be limited to, nonprescriptive equipment, sensory aids, and other equipment and materials as appropriate.

Low-Incidence Funding

Education Code Section 56771

(a) Commencing with the 1985-86 fiscal year, and for each fiscal year thereafter, funds to support specialized books, materials, and equipment as required under the individualized education program for each pupil with low-incidence disabilities, as defined in Section 56026.5, shall be determined by dividing the total number of pupils with low-incidence disabilities in the state, as reported on December 1 of the prior fiscal year, into the annual appropriation provided for this purpose in the Budget Act.

(b) The per-pupil entitlement determined pursuant to subdivision (a) shall be multiplied by the number of pupils with low-incidence disabilities in each special education local plan area to determine the total funds available for each local plan.

(c) The superintendent shall apportion the amount determined pursuant to subdivision (b) to the responsible local agency in the special education local plan area for purposes of purchasing and coordinating the use of specialized books, materials, and equipment.

(d) As a condition of receiving these funds, the responsible local agency shall ensure that the appropriate books, materials, and equipment are purchased, that the use of the equipment is coordinated as necessary, and that the books, materials, and equipment are reassigned to local educational agencies within the special education local plan area once the agency that originally received the books, materials, and equipment no longer needs them.

(e) It is the intent of the Legislature that special education local plan areas share unused specialized books, materials, and equipment with neighboring special education local plan areas.

Special Supplies and Equipment

Education Code Section 56822

Sound recordings, large type, and braille books purchased, instructional materials transcribed from regular print into special media, and special supplies and equipment purchased for individuals with exceptional needs for which state or federal funds were allowed are property of the state and shall be available for use by individuals with exceptional needs throughout the state as the board shall provide.

Reference Directory

This reference directory contains listings of sections from "Part 30. Special Education Programs" and other sections from the *Education Code*¹, as well as other pertinent legislation. These sections were current as of June, 1986.

<i>Chapters</i>	<i>Commencing with Education Code Section</i>
Chapter 1. General Provisions	
Article 1. Intent	56000
Article 2. Definitions	56020
Article 3. General Provisions	56040
Article 3.5. Surrogate Parents	56050
Article 4. Substitute Teachers	56060
Chapter 2. Administration	
Article 1. State Board of Education	56100
Article 2. Superintendent of Public Instruction	56120
Article 3. County Offices	56140
Article 4. Juvenile Court Schools	56150
Article 5. Licensed Children's Institutions and Foster Family Homes	56155
Article 5.5. Public Hospitals, Proprietary Hospitals and Other Residential Medical Facilities	56167
Article 6. School Districts	56170
Article 7. Community Advisory Commission	56190
Chapter 3. Elements of the Local Plan	
Article 1. State Requirements	56200
Article 2. Local Requirements	56220
Article 3. Staff Development	56240
Chapter 4. Identification and Referral, Assessment, Instructional Planning, Implementation, and Review	
Article 1. Identification and Referral	56300
Article 2. Assessment	56320
Article 2.5. Eligibility Criteria for Special Education and Related Services on the Basis of Language and Speech Disorder or Specific Learning Disabilities	56333
Article 3. Instructional Planning and Individualized Education Program	56340
Article 4. Implementation	56360
Article 5. Review	56380
Chapter 4.4. Early Education for Individuals with Exceptional Needs	
Article 1. General Provisions	56425
Article 2. Legislative Intent	56430
Chapter 4.5. Career and Vocational Education Programs and Funding	56450
Chapter 4.7. Interagency Agreements	56475
Chapter 5. Procedural Safeguards	56500

¹Please contact your district administrative office or office of the county superintendent of schools for access to copies of the *Education Code: California Administrative Code, Title 5, Education*; or *Code of Federal Regulations*.

Reference Directory—Continued

<i>Chapters</i>	<i>Commencing with Education Code Section</i>
Chapter 6. Evaluation, Audits, and Information	56600
Chapter 7. Funding of Special Education Programs	
Article 1. State Aid Apportionments	56700
Article 2. Computation of State Aid	56710
Article 3. Instructional Personnel Services	56720
Article 4. Support Services	56730
Article 5. Nonpublic, Nonsectarian School Services	56740
Article 6. Local General Fund Contribution	56750
Article 7. Service Proportions	56760
Article 8. Special Transportation	56770
Article 9. Program Specialists and Regionalized Services	56780
Article 10. Deficit Funding	56790
Article 12. General Provisions	56820
Chapter 8. Special Education Programs for Individuals with Exceptional Needs Residing in State Hospitals	56850
Chapter 9. Joint Funding for Education of Handicapped Children Act of 1980	56875
<i>Selected Provisions Not Included in Part 30</i>	
Temporary Classroom Facilities and State Funding Freeze on Growth (AB 223 - Chapter 323, Statutes of 1983)	
Transportation Consolidation (Education Code Part 24, Section 41850)	
Revenue Limits for Pupils in Special Classes and Centers (Education Code Part 24, Section 42238.9)	
Reappropriation of PL 94-142 Funds (Education Code Part 24, Section 42242)	
Suspension - Expulsion of Handicapped Pupils (Education Code Part 27, Section 48915(d))	
1983-84 Budget Adjustments and Unexpended PL 94-142 Funds (AB 70 - Chapter 1302, Statutes of 1983)	
Differential Proficiency Standards (Education Code Part 28, Section 51215)	
State Special Schools Excess Cost Provision (Education Code Part 32, Section 59300)	

Resources for Technical Assistance

This list of resources shows where information about specific areas may be obtained. Resources for technical assistance are available from the California State Department of Education, other state agencies, and various state and national organizations.

California State Department of Education

For information about identification, assessment, instruction and services, curriculum, public school programs and private schools and agencies, directories, funding and legal requirements, and monitoring, one should contact the following services provided by the California State Department of Education. The mailing address is California State Department of Education, P.O. Box 944272, Sacramento, CA 94244-2720.

Consultant Services—North
Special Education Division
721 Capitol Mall
Sacramento, California
(916) 445-3561

Consultant Services—South
Special Education Division
601 West Fifth St., Suite 1014
Los Angeles, CA 90017
(213) 620-4262

(Assistance from a preschool educational adviser is also available from this office.)

Information about basic curriculum and instruction may be obtained from:

Curriculum and Instruction and Assessment Division
721 Capitol Mall
Sacramento, California
(916) 322-0498

Information about the educational and residential program and assessment center may be obtained from:

California School for the Blind
500 Walnut Ave.
Fremont, CA 94536
(415) 794-3800

Materials and equipment, aural media, and transcribers, as well as information about these resources, are available from:

Clearinghouse Depository for Handicapped Students
1025 P St., Rm. 251
Sacramento, California
(916) 445-5103

Assistance with program evaluation is available from:

Program Evaluation and Research Division
Local Evaluation and Assessment Field Services
721 Capitol Mall
Sacramento, California
(916) 445-9574

Information about students with other special needs is available from:

Coordinated Categorical Services Division
721 Capitol Mall
Sacramento, California
(916) 445-7492

Information about vision screening and health services is available from:

School Health Programs
721 Capitol Mall
Sacramento, California
(916) 322-5420

For information about vocational education available to the visually impaired, one should contact:

Vocational Education Division
721 Capitol Mall
Sacramento, California
(916) 445-3314

Additional Resources

For information about eye specialists, one should contact:

California Optometric Association
921 11th St.
Sacramento, CA 95812
(916) 441-3990

California Association of Ophthalmologists
2655 Van Ness Ave., Suite 216
San Francisco, CA 94109
(415) 775-5259

The following organization sponsors an annual state conference and provides information about transcription in special media and publications, including a newsletter for transcribers and educators:

California Transcribers and Educators
of the Visually Handicapped
741 N. Vermont Ave.
Los Angeles, CA 90029

The address of the main office of the California State Department of Rehabilitation is:

Department of Rehabilitation
830 K Street Mall
Sacramento, CA 95814
(916) 323-4345

District offices are located throughout the state.

Information about state hospital programs in California is available from:

Department of Developmental Services
1600 Ninth St., Second Floor South
Sacramento, CA 95814
(916) 323-4848

Information about preparation programs for teachers of the visually impaired, orientation and mobility specialists, and credentials may be obtained from:

Commission on Teacher Credentialing
1020 "O" St., Rm 222
Sacramento, CA 95814
(916) 445-7254

California State University, Los Angeles
Department of Special Education
5151 State University Dr.
Los Angeles, CA 90032
(213) 224-3711

San Francisco State University
Department of Special Education
1669 Holloway Ave.
San Francisco, CA 94132
(415) 469-1080

The following is the only membership organization dedicated to the education and rehabilitation of blind and visually impaired children and adults. The organization and chapters conduct local, regional, and international meetings and conferences; provide publications, including newsletters and journals; and offer a job exchange service. The addresses are as follows:

Association of Education and Rehabilitation
of the Blind and Visually Impaired
206 N. Washington St.
Alexandria, VA 22314
(703) 548-1884; (703) 836-6060

Northern California Chapter
San Francisco State University
Department of Special Education
1600 Holloway Ave.
San Francisco, CA 94132
(415) 469-1080

Southern California Chapter
California State University, Los Angeles
Department of Special Education
5151 State University Dr.
Los Angeles, CA 90032
(213) 224-3711

The following professional organizations of orientation and mobility specialists hold state and local meetings, publish newsletters, and provide information in this field. The addresses in California for this organization are:

California Association of Orientation and Mobility Specialists:

Northern California Chapter
San Francisco State University
Department of Special Education
1600 Holloway Ave.
San Francisco, CA 94132
(415) 469-1008

California Association of Orientation and Mobility Specialists

Southern California Chapter
California State University Los Angeles
Department of Special Education
5151 State University Dr.
Los Angeles, CA 90032
(213) 224-3711

The organization listed as follows provides catalogs of publications, media, and aids and appliances. The services of national and regional consultants and publications, including the *Directory of Agencies Serving the Visually Handicapped in the U.S.*, are available from this organization.

American Foundation for the Blind, Inc.
15 W. 16th St.
New York, NY 10011
(212) 620-2000

American Foundation for the Blind, Inc.
Western Regional Office
760 Market St.
San Francisco, CA 94102
(415) 392-4845

The following organization publishes newsletters and position papers and hosts national meetings:

Division for Visually Handicapped
Council for Exceptional Children
1920 Association Dr.
Reston, VA 22091
(703) 620-3660

The organization listed as follows provides information, referral services, and public education:

Joint Action Committee of Organizations Of
and Serving the Visually Handicapped
7119 Raintree Circle
Culver City, CA 90230
(213) 204-6852

The following organization supports sight conservation and work for the blind:

Lions International
300 22nd St.
Oak Brook, IL 60521

The organizations listed below provide peer support information and services to parents of visually impaired and multiply impaired/visually impaired students.

National Association for Parents of the Visually Impaired, Inc.
P.O. Box 180806
Austin, TX
(512) 459-6651

The address of the California chapter is:

California Association for Parents of the Visually Impaired
1264 Morrison St.
North Hollywood, CA 91607
(818) 763-1759

The following organizations work to prevent blindness and eye injury through public awareness programs:

National Association for Visually Handicapped
3201 Balboa Ave.
San Francisco, CA 94121
(415) 221-3201

National Society to Prevent Blindness
79 Madison Ave.
New York, NY 10016

Organizations of the blind that can provide assistance to staff and parents are:

California Council of the Blind
16119 Sherman Way
Van Nuys, CA 91406
(213) 782-7014

National Federation of the Blind of California
5982 S. Land Park Dr.
Sacramento, CA 95822
(916) 424-2226

Glossary

The purpose of this glossary is to define terminology that may be unfamiliar to some readers of this publication. These terms apply to the areas of special treatment, medication, and services for the visually impaired as well as to the nature of certain visual impairments.

Accommodation. The adjustment of the eye to focus at different distances, accomplished by changing the shape of the crystalline lens through action of the ciliary muscle.

Adapted physical education. A diversified program of developmental activities, physical fitness, games, sports, and other forms suited to the needs, interests, capacities, and limitations of students who may not safely or successfully engage in unrestricted participation in the vigorous activities of the general physical education program.

Adaptive behavior. A reaction that promotes the social or biological welfare of an organism and leads to the adjustment of the organism to its environment.

Adventitious. Occurring after birth; not present at birth.

Albinism. Congenital absence or deficiency of pigment in the iris, skin, and/or hair; usually associated with lowered visual acuity, nystagmus, and photophobia and often accompanied by large refractive errors.

Amblyopia. Diminished visual acuity, not correctable with conventional lenses, and not related to structural or pathological ocular defects.

Aniridia. Congenital or acquired absence of the iris.

Anomaly. Marked deviation from the normal standard.

Anophthalmos (anophthalmia). Absence of a true eyeball.

APH. American Printing House for the Blind. Major supplier of educational materials for visually impaired children.

Aphakia. Absence of the crystalline lens of the eye, a result of surgery, trauma, or a congenital condition.

Astigmatism. Refractive error that prevents the light rays from a single point from coming to a single focus on the retina because of unequal refraction or bending of the incident light by the refractive media of the eye.

Aural. Pertaining to the ear, hearing.

Binocular vision. The ability to use the two eyes simultaneously to focus on the same object and to fuse the two images into a single perception.

Blindness. The inability to see; absence or severe reduction of vision.

Blind spot. A "blank" area in the visual field, corresponding to the position of the optic nerve (a physiological blind spot). May also be an area of absent or reduced sensitivity anywhere in the visual field.

Braille. A system of raised dots that enables some functionally blind students to read by touch.

- Braille writer.** A machine used to produce embossed braille symbols.
- Cataract.** A condition in which the crystalline lens of the eye partially or totally loses transparency, with consequent loss of visual acuity.
- Central visual acuity.** Ability of the macula to separate details of images brought to a focus on it.
- Choroiditis.** Inflammation of the choroid.
- Closed-circuit television (CCTV).** Electronically enlarges printed material onto a television screen, allows the user to change black print on a white background into white print on a black background. The degree of illumination can be altered, as well as that of magnification.
- Cognitive skills.** Intellectual processing abilities.
- Color deficiency.** Partial or complete inability to discriminate the ordinarily differentiated hues.
- Communication skills.** Skills that enable a visually impaired person to communicate with or receive communications from others.
- Compensatory skills.** Any technique, habit, or activity that must be developed to overcome a severe visual impairment; e.g., daily living skills, social and emotional skills, and so forth.
- Cones and rods.** Two kinds of cells that form the photoreceptor layer of the retina and act as light-receiving media. Cones are concerned with visual acuity and color discrimination; rods pertain to motion and vision at low degrees of illumination (night vision).
- Congenital.** Present at birth.
- Conjunctiva.** Mucous membrane that forms the posterior layer of the eyelids and covers the front part of the eyeball, ending at the corneal limbus.
- Contact lenses.** Lenses made to fit directly on the cornea. These lenses are used for correction of vision in people having a cone-shaped cornea (keratoconus) to provide an improved retinal image and for cosmetic reasons. Corneal lenses are also used after cataract (lens) extraction to replace the lens removed from the eye. They provide less distortion and difference in the size of the image than spectacles do.
- Convergence.** The process of directing the visual axes of the two eyes to a near point, with the result that the pupils of the two eyes are closer together. The eyes are turned inward.
- Cornea.** Clear, transparent portion of the outer coat of the eyeball forming the front of the aqueous chamber. The cornea is also the major refracting medium of the eyes.
- Corneal scarring.** A lack of transparency of the clear tissue forming the anterior surface of the aqueous humor.
- Count Fingers (CF).** A method of reporting vision too poor to read the Snellen Chart; the examiner records the number of inches at which fingers can be counted.
- Daily living skills.** Skills that enable a visually impaired student to live independently.
- Dark adaptation.** The ability of the retina and pupil to adjust to a dim light.
- Depth perception.** The ability to perceive the solidity of objects and their relative position in space.
- Diffused light.** Light spread out to cover a large space or area.
- Diopter.** Unit of measurement of lens power.
- Diplopia.** The seeing of one object as two.
- Direct lighting.** Light with no shield; creates glare.
- Distance vision.** The ability to see objects clearly from a distance.
- Enucleation.** Complete surgical removal of the eye ball.
- Esotropia.** A manifest turning inward of the eye.
- Exotropia.** Abnormal turning outward from the nose of one or both eyes.
- Extraocular muscles.** Ability to move the eyes from one position to another.
- Eye specialist.** A California licensed ophthalmologist or optometrist.
- Farnsworth test.** A measurement of color perception using a series of plastic chips of slightly differing hues.
- Federal quota program.** See "American Printing House for the Blind Federal Quota Program," which appears in Chapter Four.
- Fixation ability.** Ability of the eyes to direct a person's gaze on an object and to hold the object steadily in view.
- Focus.** Point to which rays are converged after passing through a lens.
- Foot candle.** The unit commonly used to measure light intensity; the amount of light given off by a candle at a one-foot distance.
- Fovea.** A pit or depression; a rodless area of the retina affording acute vision.
- Free matter for the blind.** The mail regulation that permits free mailing privileges for the blind.
- Functional vision.** The presence of enough usable vision, giving the student the ability to use sight as a primary channel for learning. This term also means the total act of seeing and how the student uses sight to function educationally.
- Functionally blind.** A student whose primary channels for learning are tactual and auditory.
- Fusion.** The power of coordinating the images received by the two eyes into a single mental image.
- Glare.** A quality of light that causes discomfort in the eye; it may result from a direct light source within the field of vision or from a reflection of a light source not in the field of vision.
- Glaucoma.** A disease of the eye marked by an increase in the intraocular pressure causing organic changes in the optic nerve and defects in the visual field.
- Halberg clips.** Lens holders that can be placed on glasses for testing.
- Hemianopsia (Hemianopia).** Defective vision or blindness in half of the visual field.
- Hand movements (HM).** A method of reporting the vision of people that is too poor for them to read the Snellen Chart and too poor for them to count fingers; the examiner moves his or her hand at a relatively close distance from the eyes of the patient and records his distance if movement is discernible.
- Hydrocephalus (hydrocephaly).** A condition characterized by abnormal accumulation of fluid in the cranial vault, accompanied by enlargement of the head, prominence of the forehead, atrophy of the brain, mental weakness, and convulsions.

- Hyperopia.** Farsightedness; a condition of the eye in which light rays from distant objects are brought to a focus behind the retina when the eye is at rest.
- Individualized education program (IEP).** A written plan for a handicapped student that is developed and implemented in accordance with the IEP team and that is designed to meet the assessed needs of the student.
- Intraocular origin.** Occurring from inside the eye.
- Iris.** Colored, circular muscle suspended between the cornea and the crystalline lens. It separates the anterior and posterior chambers and is perforated in the center to form the pupil.
- Jaeger test.** A test for reading, in which lines of reading matter are printed in a series of type sizes, often written J#1, J#2, and so forth.
- Keratoconus.** A conical protrusion of the cornea associated with corneal thinning and scarring.
- Keratometry.** The measurement of corneal curvature.
- Large print or type.** Print which is larger than type commonly found in magazines, newspapers, and books. Ordinary print is 6 to 11 points in height (about 1/16 to 3/8 of an inch). Large type is 14 to 18 points (3/16 to 1/4 of an inch) or larger.
- LEA.** Local educational agency.
- Legally blind.** Central visual acuity of 20/200 or less in the better eye after best correction with conventional spectacle lenses, or visual acuity better than 20/200 if there is a field defect in which the widest diameter of the visual field is no greater than 20 degrees. In the United States this definition has been established primarily for economic and legal purposes.
- Lens.** A refractive medium.
- Lentiglobus.** An exaggerated curvature of the crystalline lens, producing a spherical bulging on its anterior surface.
- Light adaptation.** The power of the eye to adjust itself to variations in the amount of light.
- Light perception (LP).** The ability to distinguish light from dark.
- Light preference.** Preferring a specific type of light and/or degree of illumination to accommodate for a visual impairment; i.e., direct light to indirect lighting/dim light to bright.
- Light projection.** The ability to determine the direction of light.
- Loupe.** A small magnifier.
- Low vision.** A student whose vision can be used as a primary channel for learning (sometimes referred to as partial sight or subnormal vision).
- Low vision aids.** Optical devices of various types useful to persons with visual impairments (magnifiers, monoculars, lenses, hand-held telescope, prism lenses, and so forth).
- Low vision assessment.** A comprehensive assessment of a visually impaired student's visual impairment and visual potentials and capabilities.
- Low vision clinic.** A clinic that gives eye examinations, provides low vision assessments, prescribes low vision aids, and offers instruction on how to use the aids.
- Macula lutea.** The small area of the retina that surrounds the fovea and with the fovea makes up the area of most distinct vision.
- Macular degeneration.** A disease affecting cone cells in the macula, usually results in gradual loss of central vision, but never in total blindness. It is often associated with the aging process.
- Mobility.** A term used to denote the ability to navigate from one's present fixed position to one's desired position in another part of the environment. (See also *Orientation*.)
- Monocular diplopia.** A condition in which two images of the same object are seen by one eye.
- Motor skills.** Movement ability.
- Multiply impaired.** Two or more concomitant disabilities that have a direct effect on learning ability.
- Muscle balance.** The ability of the six extraocular eye muscles of each eye to pull together to allow binocular vision to occur in all directions—vertical, horizontal, oblique, and circular.
- Myopia.** Nearsightedness; a refractive error in which the point of focus for rays of light from distant objects falls in front of the retina.
- Near vision.** The ability to see objects distinctly at the required reading distance.
- Night blindness.** A condition in which the rod function is diminished to cause deficient visual acuity at night and in dim light.
- Nystagmus.** An involuntary, rapid movement of the eye ball; it may be lateral, vertical, rotary, or mixed.
- Ocular pursuit.** The act of tracking a moving object in all cardinal directions—vertical, horizontal, oblique, and circular.
- Occipital cortex.** The section of the brain that monitors visual sensations.
- O.D.** Oculus dexter; right eye.
- Ophthalmologist.** A doctor of medicine (MD) who specializes in diagnosis and treatment of defects and diseases of the eye, performing surgery when necessary or prescribing other types of treatment, including glasses or other optical devices.
- Optic atrophy.** Degeneration of the nerve tissue that carries messages from the retina to the brain.
- Optic nerve.** The group of nerve fibers that carry impulses from the retina to the visual cortex.
- Optician.** One who grinds lenses, fits them into frames, and dispenses and adjusts glasses or other optical devices on the written prescription of an optometrist or physician.
- Optometrist.** A doctor of optometry (OD) who specializes in the examination and treatment of conditions or impairments of the visual system. Optometrists are trained to detect problems with vision, eye diseases, and other abnormalities.
- Orientation.** The process of using the remaining senses in establishing one's position and relationship to all other significant objects in the environment. (See also *Mobility*.)
- Orthoptic training.** Series of scientifically planned exercises for developing or restoring the normal teamwork of the eyes.

- Orthoptist.** One who provides orthoptic training.
- O.S.** Oculus sinister; left eye.
- O.U.** Oculus unitas; both eyes.
- Paresis.** Slight or partial paralysis.
- Partially sighted.** The visual acuity of a partially sighted person ranges from 20/70 to 20/200 in the better eye, with correction. (See also *Low vision*.)
- Peripheral vision.** The perception of objects, motion, or color by any part of the retina, excluding the macula.
- Photophobia.** Abnormal sensitivity to or discomfort from light.
- Polycoria.** The existence of more than one pupil in an eye.
- Program evaluation.** A process for obtaining information to assist in making decisions on program improvement and expansion, maintenance, or termination of a program or program component.
- Proprioceptive.** Receiving stimulations within tissues of the body.
- Ptosis.** A paralytic drooping of the upper eyelid.
- Public Law 94-142.** A federal law mandating a free appropriate public education for all handicapped children.
- Pupil.** The round opening (black center) in the center of the iris, which corresponds roughly with the shutter opening of a camera. This opening permits light to enter the eye.
- Quadrantanopsia (Quadrantanopia).** Defective vision or blindness in one fourth of the visual field, bounded by a vertical and a horizontal radius.
- Reading machine.** A machine used to read printed material orally or tactually.
- Reading stand.** A stand that supports regular or large print books and allows the reader to change the position of the book.
- Refraction.** The bending or deviation of rays of light in passing obliquely from one medium to another of different density; the determination of the refractive errors of the eye and their correction by prescription of lenses.
- Refractive error.** A defect in the eye that prevents light rays from being brought to a single focus on the retina.
- Residual vision.** The remaining useful sight after a congenital defect, injury, illness, trauma, systemic disease, or ocular pathology has caused a vision loss.
- Retina.** Innermost coat of the eye, containing light sensitive nerve cells and fibers connecting with the brain through the optic nerve.
- Retinal detachment.** A separation of the retina from the choroid.
- Retinitis.** Inflammation of the retina.
- Retinitis pigmentosa.** Degeneration and atrophy of the light-sensitive (rod cells) of the retina.
- Retinoblastoma.** A tumor arising from the retinal germ cells; the most common malignant intraocular tumor of childhood, usually occurs under age five.
- Retinoscope.** An instrument for the objective determining of the refractive error of the eye by observing the movements of lights and shadows across the pupil by the light thrown onto the retina from a moving mirror.
- Retinoschisis.** A congenital cleft of the retina.
- Retrolental fibroplasia (RLF).** A disease of the retina in which a mass of scar tissue fills the space between the back of the lens and the retina. Both eyes are affected in most cases, and it occurs chiefly in infants born prematurely who receive excessive oxygen.
- Saccadic fixation.** Relating to eye movements; the jumping movement of the eyes between fixations.
- Sclera.** The white coating of the eye.
- Scotoma (scotomata).** A blind or partially blind area in the visual field.
- SEA.** State educational agency; e.g., the California State Department of Education.
- SELPA.** Special education local plan area.
- Sensory/motor.** Relating to or functioning in either sensory or motor aspects or both of bodily activity. This term, which differs from the ordinary spelling of *sensorimotor*, is commonly used in special education.
- Sensory stimulation.** To rouse or invigorate the senses—visual, auditory, olfactory, gustatory, and kinesthetic.
- Sighted guide techniques.** Techniques that are used by the sighted to guide the visually impaired.
- Sine correction (SC).** Without correction, not wearing glasses.
- Slate and stylus.** Slate: a metal plate used to hold paper for hand brailleing. Stylus: an instrument used to press the braille dots on the paper held by the slate.
- Snellen chart.** Used for testing central visual acuity. It consists of lines of letters, numbers, or symbols in graded sizes drawn to Snellen measurements. Each size is labeled with the distance at which it can be read by the normal eye. Most often used for testing vision at distances of 20 feet.
- Stereoscopic vision (Stereopsis).** Ability to perceive relative position of objects in space without such cues as shadow, size, and overlapping.
- Strabismus.** Squint; failure of the two eyes simultaneously to direct their gaze at the same object because of muscle imbalance.
- Suppression.** A mental process of inattention to distracting or disturbing stimuli. Often a forerunner of amblyopia.
- Talking book machine.** A record player with a variety of speeds available for the visually or physically handicapped. This equipment is free on personal loan. Application is made through the National Library Service for Blind and Physically Handicapped.
- Talking book record.** Records used with the talking book machine.
- Talking calculator.** Hand-held calculator that speaks each entry and result. It is capable of performing all the computations of a nonadapted electronic calculator.
- Telebinocular.** Any stereoscopic instrument used for vision screening.
- Tonometer.** An instrument for measuring pressure inside the eye.
- Tracking.** The ability of the eye or eyes to follow systematically an object of regard; e.g., print or ball.
- Trailing.** Information gathering and direction taking techniques, using the hand or cane.
- Trauma.** Injury, wound, or shock, or the resulting condition.

Tunnel vision. Contraction of the visual field to such an extent that only a small area of central visual acuity remains, thus giving the affected individual the impression of looking through a tunnel.

Vision. The art or faculty of seeing.

Visual acuity. The measurement of the sharpness of vision in respect to the ability to discriminate detail. A visual acuity measurement is not useful for determining a career choice, classroom situation, or training program. Visual acuity should not be used to predict one's visual function or educational performance.

Visual efficiency. The level of visual function.

Visual processing. How one uses or processes the images acquired by the act of seeing.

Vitreous humor. Transparent, colorless mass of soft, gelatinous material filling the space between the lens and retina.

Vitreous turbidity. Cloudiness or haze in the vitreous humor.

WTR test. A polaroid test for measuring stereopsis.

Publications Available from the Department of Education

This publication is one of over 600 that are available from the California State Department of Education. Some of the more recent publications or those most widely used are the following:

Academic Honesty (1986)	\$2.50
Aids for the Handicapped Trainer's Manual (1982)	6.50
California Master Plan for Special Education (1974)	1.00*
California Private School Directory	9.00
California Public School Directory	14.00
California Schools . . . Moving Up: Annual Status Report, 1985 (1986)	3.00
California Special Education Programs: A Composite of Laws (1986)	NC
Career/Vocational Assessment of Secondary Students with Exceptional Needs (1983)	4.00
Early Warning Signs That Your Child May Need Help (brochure) (1981)	NC*
Early Warning Signs: Parent's Preview Guide (1986)	2.00
Early Warning Signs: Screening in California Public Schools (1984)	2.50
Early Warning Signs: Meeting Students' Specialized Physical Health Care Needs (1980)	2.50*
Book for Planning an Effective Foreign Language Program (1985)	3.50
Book for Planning an Effective Mathematics Program (1982)	2.00
Book for Planning an Effective Reading Program (1983)	1.50
Handbook for Planning an Effective Writing Program (1986)	2.50
Handicapped Infant and Preschool Children: Program Guidelines (1981)	2.50
History . . . Social Science Framework for California Public Schools (1981)	2.25
Identification and Assessment of the Seriously Emotionally Disturbed Child (1986)	2.75
Mathematics Framework for California Public Schools (1985)	3.00
Model Curriculum Standards: Grades Nine Through Twelve (1985)	5.50
Physical Education for Individuals with Exceptional Needs (1986)	9.75
Practical Ideas for Teaching Writing as a Process (1986)	6.00
Program Guidelines for Severely Orthopedically Impaired Individuals (1985)	6.00
Program Guidelines for Visually Impaired Individuals (1986)	6.00
Raising Expectations: Model Graduation Requirements (1983)	2.75
Reading Framework for California Public Schools (1980)	1.75
School Nutrition and Food Service Techniques for Children with Exceptional Needs (1982)	2.00
Science Education for the 1980s (1982)	2.50
Science Framework for California Public Schools (1978)	3.00
Science Framework Addendum (1984)	3.00
A Special Need, A Special Education (brochure) (1981)	NC
Standards for Scoliosis Screening in California Public Schools (1985)	2.50
Visual and Performing Arts Framework for California Public Schools (1982)	3.25

Orders should be directed to:

California State Department of Education
P.O. Box 271
Sacramento, CA 95802-0271

Remittance or purchase order must accompany order. Purchase orders without checks are accepted only from government agencies in California. Sales tax should be added to all orders from California purchasers.

A complete list of publications available from the Department, including apprenticeship instructional materials, may be obtained by writing to the address listed above.

A list of approximately 200 diskettes and accompanying manuals, available to members of the California Computing Consortium, may also be obtained by writing to the same address.

*Also available in Spanish at the same price.

†Includes 1982 and 1983 revisions.