LOS ANGELES UNIFIED SCHOOL DISTRICT

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Position Paper No. 13

Schools for All Children

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The Los Angeles Unified School District's Position Paper Orientation and Mobility Services

Orientation and Mobility services are provided to students with visual impairments whose vision loss meet the legal standard as either legally blind or partially sighted and negatively impact their ability to access their classroom, school, and community environments in a safe, oriented, and confident manner.

STUDENTS WITH LOW INCIDENCE DISABILITIES

A visual impairment is a low incidence disability.

The California Education Code Section 56026.5 defines a low incidence disability as "…a severe disabling condition with an expected incidence rate of less than one percent of the total statewide enrollment in kindergarten through grade 12." A low incidence disability is further defined to state "…vision impairments do not include disabilities within the function of vision specified in Section 56338." Additionally, Section 56000.5(a) (2) finds and declares that "pupils with low-incidence disabilities require highly specialized services, equipment, and materials."

BACKGROUND

A visual impairment often affects the student's ability to access pertinent environments. The principal way typically developing sighted students acquire knowledge and skills is through incidental learning, the process of observing others and the environment that occurs naturally at home, at school, and in the community. Deficits in incidental learning leave students with visual impairments behind in the acquisition of body image, spatial, temporal, positional, directional, and environmental concepts as well as the travel skills required to integrate with confidence and dignity. Orientation and mobility (O&M) services provide instruction to students with visual impairments in the specialized skills needed to understand, orient, and travel in various physical environments and spaces.

In addition to instruction in core academics such as English language arts, math, science, social studies, and physical education, students with visual impairments must also receive instruction in the social and life skills necessary for them to access and participate in school and community

activities. The California Department of Education's "*Guidelines for Programs Serving Students With Visual Impairments (2014 Revised Edition)*" dictates that these non-academic skills be taught using the Expanded Core Curriculum (ECC), a comprehensive array of specialized instruction and services maximizing the capacity of students with visual impairments to learn effectively and live independently. The ECC addresses instruction in nine integral and complementary skill areas including: orientation and mobility, independent living, recreation and leisure, and self-determination. Instruction in the ECC skills is taught in alignment with instruction in the core curriculum as a part of the student's individualized educational program.

O&M services address the unique and differentiated skills visually impaired students may require to travel independently with proficiency, safety, and confidence enabling them to participate meaningfully in all educational and life activities. O&M services are provided by credentialed professionals qualified to teach students with visual impairments how to access and safely negotiate school, home, and community environments. Training areas include settings that a sighted student would typically need to traverse, such as classrooms, school campuses, residential neighborhoods, small and large business districts, commercial centers, and rural environments.

The O&M instructor provides prescriptive instruction according to the guidelines set forth in the Individuals with Disabilities Education Improvement Act of 2004 (IDEIA). Orientation and Mobility services enable students with visual impairments to attain systematic orientation to and safe movement within their environments in school, home, and community; and include teaching the following skills, as appropriate:

- Spatial and environmental concepts and use of information received by the senses (such as sound, temperature, and vibrations) to establish, maintain, or regain orientation and line of travel (e.g. using sound at a traffic light to cross the street);
- To use the long cane or a service animal to supplement visual travel skills or as a tool for safely negotiating the environment for children with no available travel vision;
- To understand and use remaining vision and distance low vision aids; and
- Other concepts, techniques, and tools.

To be eligible for O&M services, a student must have a medically diagnosed visual impairment that meets the legal standard for either legally blind or partially sighted. In addition, their vision loss must adversely affect their academic performance [CCR, Title V, § 3030 (d)]. For educational purposes, the term *visually impaired* includes: (a) students who are functionally blind and rely primarily on senses other than vision as their major channel for learning; and (b) students with some remaining or low vision who use vision as a major learning channel. A visual impairment does not include visual, perceptual, or visual motor dysfunction resulting solely from a learning disability.

PURPOSE

The purpose of this position paper is to identify guidelines for O&M services available to students with visual impairments within the Los Angeles Unified School District (LAUSD). The continuum of service delivery options for O&M service support aligns with the District's three-tiered model of prevention and intervention and will be described in the following order:

Section I: Pre-referral Response to Instruction and Intervention (RtI^2)
Section II: Referral and Functional Vision and O&M assessments

Section III: O&M Intervention Strategies within Special Education
Section IV: O&M Service Completion Guidelines

POSITION

The District believes that in an effort to ensure a successful school experience for all children:

1. Students will be able to access their educational environment;
2. Students will take an active role in their educational program;
3. Students with visual impairments will learn the necessary skills that will enable them to perform fundamental learning processes and interactions, access information, form ideas, communicate effectively, and become literate;
4. Students with disabilities will develop functional/academic skills and participate in meaningful daily school activities;
5. Students eligible for O&M services will be provided with purposeful, targeted interventions designed to help mitigate obstacles that may impede learning or active participation in school or society;
6. Students receiving O&M services have the opportunity to participate in integrated educational environments with non-disabled, same aged peers.

SECTION I
PRE-REFERRAL AND RESPONSE TO INSTRUCTION AND INTERVENTION (RTI^2)

Response to Instruction and Intervention (RtI^2) is a systemic multi-tiered framework that guides the development of a well-integrated and seamless system of instruction (e.g. literacy, numeracy, language development, and positive behavior support across content areas) and intervention that is matched to student need and directed by student outcome data from multiple measures. (BUL-4827.1: Multi-Tiered Framework for Instruction, Intervention, and Support)

The RtI^2 framework establishes a process for providing increasing levels of instructional time and intensity whereby the needs of all learners are identified, supported early and effectively, and high performing students have access to acceleration in learning. The RtI^2 framework is based on the provision of good, quality, first instruction and the use of data to identify students for appropriate acceleration and interventions. RtI^2 implementation is everyone's responsibility and advances academic achievement through frequent progress monitoring, ongoing data collection and analysis, as well as the provision of immediate evidence-based intervention for students who need it.

There are five essential components of RtI^2 :

1. Multi-tiered framework to instruction and intervention
2. Problem-solving process
3. Data-based decision making
4. Academic engagement time
5. Professional development

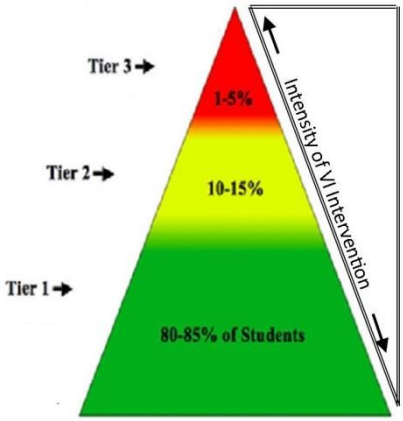
At each tier of service in a multi-tiered approach to instruction and intervention, teachers provide instruction that is differentiated, culturally responsive, data based, and aligned to the Common

Core Standards. All students should have universal access to high-quality instruction. Universal access refers to the right of all students to equal opportunity and access to high quality, grade level instruction and behavioral support. The Orientation and Mobility (O&M) instructor is an important part of the RtI^2 process in the general education setting. By participating in this intervention approach, the O&M instructor contributes expertise to the problem solving process and provides strategies for any student who may evidence challenges with their vision and vision function. The problem solving process requires a step-by-step focus to define the problem, analyze the problem, implement intervention strategies, and evaluate the response to the instruction and intervention.

Tier 3: Intensive Instruction and Intervention
"Intensive Intervention," is for an estimated 1-5% of students that need individualized and/or very small-group instruction that is highly focused, in addition to Tiers 1 & 2, and designed to accelerate student progress.

Tier 2: Strategic or Supplemental Instruction
It is expected that 10-15% of students will need additional time and type of instruction to learn successfully.

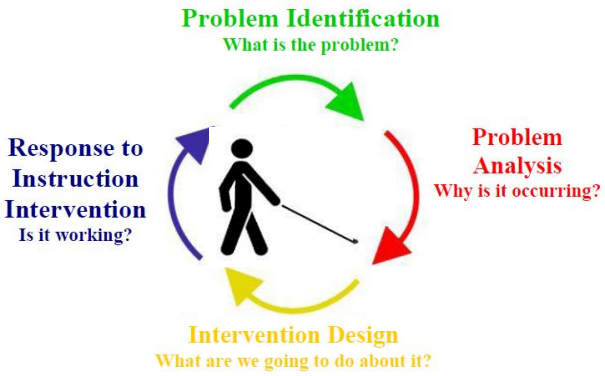
Tier 1: Core Instruction
It is expected that of all of the students receiving core instruction, 80-85% of students will be proficient when good first instruction is delivered.



A Problem Solving Cycle in General Education

Identification
O&M instructors may be called upon to assist in determining how well a student uses vision to access and participate in his/her instructional setting.

Problem Analysis
O&M instructors may be called upon to evaluate how and when a vision loss or limitation might interfere with, limit, or prevent orientation to and safe movement within school environments.



Intervention Design
O&M instructors may be called upon to assist the educational team with strategies, accommodations, or the determination of appropriate orientation or mobility strategies for a student with a suspected vision loss or deficit.

Response to Instruction and Intervention

O&M instructors may be called upon to assist the educational team with progress monitoring, ongoing data collection, and evaluation to determine the success or failure of a vision-related orientation or mobility intervention. Results are utilized throughout the school year to determine the nature of the service and the level of intensity and/or support necessary for individual students with vision loss or deficits.

Intervention Strategies

Tier 1: Core Instruction

Within the Tier 1 level of universal access to core curriculum and instruction for all students, the O&M instructor acts as a consultant to educational teams regarding the orientation and mobility development for efficient and safe travel practices. Consultation may be formal or informal and focuses on increasing the general knowledge base of administrators, teachers, school staff, bus drivers, and parents regarding the needs of students with vision loss or limitations. The consultations may include:

- Distribution of literature, provision of resources, in-services for staff and parents regarding basic travel safety;
- Suggestions for environmental adaptations or accommodations;
- Suggestions for appropriate procedures for interacting with students with vision loss or deficit that foster independence and safety.

Tier 2: Targeted, Supplemental Interventions & Supports

Within the Tier 2 level of intervention serving students who are not making adequate progress, the O&M instructor may assist the Teacher of the Visually Impaired (TVI) to screen a student for possible functional vision problems. A collaborative TVI and O&M screening includes an observation of the student conducted in a natural environment to elicit a representative sample of his/her functional vision use. Screening observations do not involve any activity that removes the student from his/her regular school program or singles-out him/her from peers.

The O&M instructor acts as a member of the educational team and may engage in one or more of the following activities:

- Observation of the student in the classroom and/or other school environments;
- Consultation with parents, teachers, and other school staff regarding concerns about the student's vision-related behaviors;
- Review data and provide feedback regarding classroom strategies and/or adaptations implemented based on Tier 1 universal access guidelines.

The collaborative TVI and O&M observation and evaluation of the student's vision use may result in the following outcomes:

- Provision of information to the teacher, school staff, or parent to support the determination that the student's use of their functional vision is adequate to access the educational instruction and navigate the environment;
- Provision of recommendations for targeted interventions or program/environmental adaptations to be implemented and documented by the classroom teacher and/or parents;

- Recommendation to schedule a Student Support and Progress Team (SSPT) meeting to address student's vision needs, review the program/environmental adaptations and their effect on the student's progress, and next steps**.**

For the benefit of the student's health and to prevent any further delays, it may be recommended that the student be referred for a vision test.

Tier 3: Intensive, Individualized Interventions and Supports
If the student's visual loss or deficit does not meet the legal standard as either legally blind or partially sighted, the Tier 3 support of the O&M instructor can result in follow-up with consultation and monitoring with the educational staff and parents to support the student's SSPT determined targeted vision-related, orientation and mobility needs. The focus of the intensive support is on specific functional vision skills required for the student to access the educational environment and participate in educational activities.

It is the responsibility of the classroom teacher to implement and document progress for the recommended targeted interventions. It is the role of the O&M instructor to consult with the classroom teacher and parent on a regular basis to monitor the recommended supports and/or adaptations as well as to make adjustments to those vision-related recommendations as needed.

At the Tier 3 level of instruction and intervention, a 504 plan may be considered to ensure the student has the appropriate vision-related recommendations and/or adaptations necessary to continue accessing and making progress in his/her curriculum.

If a student continues to struggle with the use of his/her functional vision despite the consistent, documented implementation and use of targeted interventions and adaptations, a referral for a special education evaluation in all areas of suspected disability may be made, including a Functional Vision Assessment (FVA) and an O&M assessment. Within the Tier 3 level of services, the O&M instructor may utilize the results of any screening observations as factors in determining if an O&M assessment is appropriate to evaluate the student's vision-related needs.

SECTION II
REFERRAL AND FUNCTIONAL VISION AND O&M ASSESSMENTS

The mission of the Division of Special Education is to provide leadership, guidance, and support to the school community in order to maximize learning for all students within an inclusive environment so that each student will contribute to and benefit from our diverse society.

The purpose of an initial special education eligibility evaluation is to determine whether a child has a disability and the nature and extent of the special education and related services that the child needs (34 CFR §300.15). An assessment to determine special education eligibility for a student with a suspected vision loss or deficit that may be adversely impacting his/her ability to learn and/or access the curriculum should include an eye medical report to determine the extent and nature of the vision loss and/or deficit.

As part of the referral process, the parent or school should provide the VI program nurse with a current (within one year) medical report from an optometrist or ophthalmologist indicating that the student has a diagnosis of loss of visual acuity or visual field, which meets the legal standard as either legally blind or partially sighted. Those standards are:

1. Legal blindness: Visual acuity of 20/200 or worse in the better eye, with the best correction, or a visual field of 20 degrees or less in both eyes.
2. Partially Sighted (or Low Vision): Visual acuity of 20/70 – 20/200 in the best eye with the use of correction (CFR 20 404.1581).

The eye medical report information establishes a vision diagnosis that the school site team can use as part of a Functional Vision Assessment (FVA) and/or an O&M assessment. If the student also exhibits poor independent travel skills or disorientation due to lack of vision, an O&M assessment may also be required to determine the need for additional vision-related services. The FVA is performed by a qualified TVI in the student's current educational setting (EC, Sec. 56320) and the O&M assessment is conducted by a qualified O&M instructor. An O&M assessment is not a stand-alone assessment; it can only be conducted concurrent with a FVA or subsequent to a student being found eligible for Blind/Partially Sighted (BPS) services. The O&M assessment addresses how a visual impairment affects the student's:

- Understanding of the physical environment and space;
- Orientation to different school and community environments;
- Ability to travel in different school and community environments; and
- Opportunities for unrestricted independent movement.

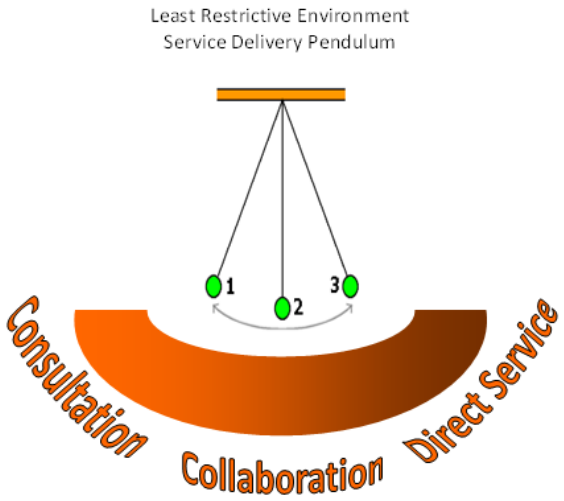
The Individualized Education Program (IEP) team will consider those areas that require the specialized skills of the O&M instructor to assist the student in the acquisition and maintenance of those skills, including the intensity of the recommended O&M services. O&M services may include instruction in the following areas:

- Concept Development, which includes body image, spatial, temporal, positional, directional, and environmental concepts;
- Motor Development, including motor skills needed for balance, posture, and gait as well as the use of adaptive devices and technique;
- Sensory Development, which includes visual, auditory, vestibular, kinesthetic, tactile, olfactory, and proprioceptive senses, and their interrelationships;
- Instructional use of low vision devices and residual vision stimulation/training;
- Basic skills: human guide, protective techniques, trailing, and squaring-off;
- Long white cane techniques;
- Soliciting and/or declining assistance;
- Route planning, compass directions, use of landmarks, problem solving;
- Street crossing skills, intersection analysis, use of traffic control devices, direction taking, timing, maintaining straight line of travel, and techniques for crossing residential and business intersections;
- Use of public transportation;
- Use of electronic travel aids, smart phones, and tablet applications for orientation and advanced travel.

The IEP team will also determine the Least Restrictive Environment in which the student's supports, services, adaptations, accommodations and/or modifications can be implemented to provide educational benefit.

SECTION III
O&M INTERVENTION STRATEGIES WITHIN SPECIAL EDUCATION

The District supports a variety of strategies for the delivery of Orientation and Mobility (O&M) services. Services may fall into any of these three categories and, like a pendulum, service delivery may swing between more intense and less intense depending on the level of support required to meet the student's core academic program needs:



- **Consultation** is a service provided indirectly to the student consisting of regular review of student progress, student observation, accommodations and adaptations to educational environments and activities, and developing and modeling of effective and safe travel practices through communication between the general education teacher, the special education teacher, parent, and/or related service provider.
- **Collaboration** is a service by which general education teachers, special education teachers, and/or related service providers work together in the classroom and school community to teach and support students with vision loss and/or deficits to meet their goals and objectives and to access the educational environment and participate in all educational activities.
- **Direct (Collaboration)** is a service by which general education teachers, special education teachers, and/or related service providers work together to teach and support students with and without disabilities in the classroom. All are responsible for direct instruction, planning and delivery of instruction, student achievement, progress monitoring, and discipline to support student goals and objectives and to access the educational environment and participate in all educational activities.
- **Direct (Single Special Education Provider)** is instruction or service by a single special education provider designed to teach, support, strengthen, and bridge student skills. It is an opportunity to provide specific skill instruction, re-teach, pre-teach, and scaffold instruction to support student goals and objectives and to access the educational environment and participate in all educational activities.

All providers are expected to report progress of the students with disabilities on their caseloads toward meeting their IEP goals and objectives. Providers should coordinate with the school site to ensure they are following the school site procedures for reporting.

SECTION IV
ORIENTATION AND MOBILITY SERVICE COMPLETION GUIDELINES

Best practices require that expected outcomes and service completion criteria are discussed with the IEP team upon the initiation of O&M services and upon change in services. There are several factors the IEP teams should consider when making decisions regarding O&M service completion:

1. The student's vision-related needs addressed by O&M services no longer negatively affect his/her educational performance in the regular or special education program.
2. The student no longer requires O&M service in order to benefit from his/her special education program.
3. O&M service is no longer medically approved because of a change in the student's medical or physical status.
4. The student/parent refuses O&M service.
5. The student graduates from high school.
6. The student reaches the age of 22 years.

RELATED RESOURCES

Academy for Certification of Vision Rehabilitation and Education Professionals (ACVREP) - https://www.acvrep.org/

American Printing House for the Blind (http://www.aph.org/) - This website provides materials and information for the blind and visually impaired

American Foundation for the Blind (http://www.afb.org/default.aspx) - This website provides information about education for students with a visual impairment

Anne Sullivan Macy Act of 2013, Mark Richert, Esq, Director, Public Policy, American Foundation for the Blind (www.afb.org/MacyAct)

Braille Institute Los Angeles (http://www.brailleinstitute.org/about-braille-institute.html)

BUL-4827.1: Multi-Tiered Framework for Instruction, Intervention, and Support, dated September 1, 2009, issued by Los Angeles Unified School District Division of Special Education

California Education Code

California Legislative Information (http://leginfo.legislature.ca.gov/faces/codes.xhtml) - This website provides information on California Education Law

Code of Federal Regulations, amended 1983

Early Focus. Pogrund, R. & Fazzi, D. (2002). New York: AFB Press

ECC Essentials: Teaching the Expanded Core Curriculum to Students with Visual Impairments (2014). Carol B. Allman and Sandra Lewis, Editors

Foundations of Orientation and Mobility: Instructional Strategies and Practical Applications Vol.2, June 28, 2010, William R. Wiener, Richard L. Welsh and Bruce B. Blasch

IDEIA Final Regulations 2007 Amendments to the Individuals with Disabilities Education Act of 1997, 34 CFR Part 300.24 (b) 6, Assistance to States for the Education of Children with Disabilities

Los Angeles Unified School District Website (http://achieve.lausd.net/Page/2162)

Orientation & Mobility Severity Rating Scale (O&MSRS) Revised 2013 Severity of Need, Michigan Department of Education Low Incidence Outreach

Orientation and Mobility Techniques. Hill, E. & Ponder, P. (1976). New York: American Foundation for the Blind

Program Guidelines for Students Who Are Visually Impaired (CDE: 2014 Revised Edition)

REF-4984.1: Implementing a Multi-Tiered Framework for Instruction, Intervention, and Support, dated March 19, 2010, issued by Los Angeles Unified School District Office of Curriculum, Instruction and School Support

REF-5527.0: Visually Impaired Program: Referral, Assessment and Scope of Service, dated June 28, 2011, issued by Los Angeles Unified School District Division of Special Education

Special Education Policies and Procedures Manual. Los Angeles Unified School District, Division of Special Education. 2007

The Art and Science of Teaching Orientation and Mobility to Persons with Visual Impairments. Jacobson, W.H. (2nd Edition 2013). New York: AFB Press

Attachment A

Age Appropriate Curricular Guidelines for O&M

The following charts have been taken from:

- *Foundations of Orientation and Mobility: Instructional Strategies and Practical Applications Vol.2 June 28, 2010 by William R. Wiener, Richard L. Welsh, Bruce B. Blasch*
- *Teaching Orientation and Mobility to School-Age Children, Chapter 8, Fazzi, D.L and Naimy, B.J.; Pages 216-223*

Table 1A – Age-appropriate curricular guidelines – Mobility

Mobility	K-3	4-6	7-9	10-12
Basic Skills	*Use human guide skills (A3) *Demonstrate protective techniques (A3) *Demonstrate trailing techniques (A3) *Align and square off in indoor environments (A3)	*Correct improper human guide techniques (A8) *Anticipate the need for and use protective techniques and trailing skills in familiar environments *Demonstrate alignment and squaring off techniques in residential environments (e.g. curb or grass line)	*Teach human guide skills to others *Anticipate the need for and use protective techniques and trailing skills in unfamiliar environments *Demonstrate alignment and squaring off techniques in light business environments (e.g., store front) (A8)	
Long Cane	*Demonstrate diagonal cane techniques (A3) *Demonstrate 2-point touch technique and constant contact technique (A3) *Demonstrate touch and drag technique (A3) *Demonstrate cane skills to negotiate doors and stairs (A3) *Fold, unfold, store cane, and identify parts (A3)	* Demonstrate 3-point touch technique (A6) *Use various cane techniques in familiar indoor/outdoor environments *Bring cane to and from school *Demonstrate cane skills to negotiate escalators and elevators (WM C4, 3)	*Anticipate the need for and use various cane techniques in unfamiliar indoor/outdoor environments	*Order appropriate cane *Demonstrate awareness of use of various electronic travel devices
Street Crossings	*Cross streets with guide *Identify timing of crossings at residential streets (WSS E.4.6) *Identify basic residential intersection shapes and traffic controls *Cross residential streets with supervision (WSS E.4.6) (A3)	*Complete semi-independent residential street crossings (A6) *Demonstrate basic elements of intersection analysis (A6)	*Complete independent residential street crossings *Complete supervised light business crossings (A8) *Analyze residential and simple light business intersections (WSS E.4.6) *Complete crossing at railroad crossing (A8)	*Complete independent light business crossings *Analyze complex intersections (A8) *Complete supervised crossings at complex intersections *Complete crossing in metro/urban area (A12)

Mall, Stores, etc.	*Use human guide travel in markets and local stores	*Travel with supervision in markets and local stores *Make simple purchases (WM B.4.7)(M4) (A6)	*Travel with supervision in malls and department stores *Travel independently in small stores (A8) *Make complex purchases (WM B.4.7)	*Travel independently in markets, malls, and stores (A12)
Use of Transportation	*Use seatbelt independently	*Locate bus stop *Ride bus with others	*Use public bus with supervision (WM C.4.4) *Obtain public transportation schedule from a variety of sources	*Research independent transportation options, e.g. ride share, private driver, taxi, etc. (WM C.4.3) *Apply for para-transit services *Complete transit transfers independently

Table 1B – Age-appropriate curricular guidelines - Orientation

ORIENTATION	K-3	4-6	7-9	10-12
Land Marking	*Describe characteristics of landmarks, cues, and clues (FITL1, SK, A3) *ID appropriate home, school, and residential block landmarks (FITL1)	*ID residential landmarks in residential blocks and routes (FITL2) *Anticipate sequential landmarks during route travel in familiar areas (FITL2, WM F.4.4)	*Use effective questioning strategies to elicit landmark or destination information from others	
Route Travel	*Maintain orientation for simple route shapes (e.g. "I", "L", etc.) in home and school environment (M2) *Follow and gives simple route directions (e.g. left/right) (M1, FITL1) *Maintain orientation for simple route reversals (FITL1)	*Use street names, directions, route shape, and landmarks to maintain orientation (WM F.4.1) *Maintain orientation during complex routes (e.g. "U", "Z", etc.) in home, school, and residential block environments (FITL2, A6) *Maintain orientation for more complex route shape reversals (e.g. within a residential grid) (FITL2) *Plan routes and route alternatives to destinations within familiar residential environments (WM C.4.3, A2, A6)	*Plan alternative routes/detours within familiar light business environments	*Plan routes using public transit to unfamiliar destinations
Orientation Strategies	*Use sun to aid direction of travel (S3) *Describe spatial layout (i.e. survey level cognitive map) of familiar school, home, neighborhood locales (FITL1) *Use problem solving	*Use sun and time of day to ID cardinal direction (S3, M8) *Use self-orientation strategy for room orientation (FITL1) *Use spatial updating and time distance estimation during route travel in familiar areas (VPA2, MK) *Employ effective recovery	*Apply use of sun, compass, and landmarks to orient self when dropped off in familiar residential area (A6, M6, M8, FITL2, FITL3) *Use effective questioning (in person and via telephone) to	*Orient self when dropped off in familiar business area (M6, M8, FITL3)

Orientation Strategies (Continued)	strategies when disoriented in familiar environments (FITL1, M1)	strategies after veering into driveways, streets, etc. (M5, A6) *Problem solve using task analysis and hypothesis testing (M3, M7)	elicit route and destination information from others (WM C.4.3, FIP – L2, L3) *Locate destinations using indoor numbering and outdoor address systems (M2, FIP-L2)	
Orientation Aids (e.g. maps, GPS technology, etc.)	*Use and construct simple tactile, visual, and auditory maps (M1, VPA1, WM C.4.4, FITL1)	*Use compass to establish direction (S4, FITL2) *Use and construct detailed tactile, visual, or auditory maps to assist orientation in semi-familiar areas. (A5, M4, S7, FITL2)	*Use detailed tactile, visual or audio to orient self to shopping malls and outdoor areas (FITL3) *Use available/ accessible business directories (e.g. mall) (FITL3) *Use commercially available or internet map tools	*Use GPS technology to establish orientation, plan routes, find outdoor destinations (FITL3) *Is familiar with remote infrared audible signage (e.g. Talking Signs) (FITL3)

Table 1C – Age appropriate curricular guidelines - Concepts

CONCEPTS	K-3	4-6	7-9	10-12
Environmental	*Identify/describe common textures and terrain features (FITL1) (SK) (A3) *Identify/describe basic indoor features (e.g., doors, stairs, windows) (FITL1) (A1) *Identify/describe basic outdoor features (e.g., grass, asphalt, cement, trees, fences, mailboxes) (FITL1) (S1) (MK) (A3) *Identify/describe basic residential block concepts (M4) (WM D.4.5) (A3)	*Identify/describe advanced and atypical residential block and grid features (e.g., parkway, gutter, hedges, alley) (WM D.4.5) (A3) *Identify/describe complex indoor features (e.g., escalators and elevators) (WM C.4.3)	*Identify/describe light business features (e.g., street hardware, bus benches, sandwich boards, manhole covers) (FITL1) *Identify/describe features of grocery, department, and convenience stores and malls (WSS A.4.5) *Identify/describe features of rural and other areas without sidewalks	*Identify/describe atypical features in light business areas (e.g. construction areas and scaffolding, outdoor cafes) *Identify/describe atypical travel features (e.g., railroad track features, roundabouts, pedestrian bridges) *Identify/describe features of urban travel environments (e.g., high rise building, multi-lane and/or one-way major traffic thoroughfares, subway transit)
Spatial, e.g. directional /positional	*Identify self-object relationships (VPA2) *Identify left/right sidedness – self/others (FITL2)/objects and turns (A3) (WSS A.4.1) *Identify basic positional concepts (S1) (FITL1) (A3) *Identify clock face points (M1)	*Reverse right/left turns on return route *Identify parallel and perpendicular (M3) (A6) *Apply compass points in route travel (FITL2) *Make 90, 180, and 360 degree turns (FITL2) (A3) *Identify clockwise and	*Identify mid-compass points (FITL2) (A6) *Apply mid-compass points in identifying corners for intersection analysis	

Spatial, e.g. directional /positional (Continued)	*Identify object-object relationships (S1) *Identify basic compass points (WSS A.4.1) (FITL2) (A3)	counterclockwise directions (FITL2)		
Numbering Systems	*Count to 100 and above (M1) *Identify odd and even numbers (M1) *Determine greater and less than up to 100 (M2)	*Identify characteristics of indoor numbering systems (A6) *Identify characteristics of outdoor numbering systems (A6) *Use indoor numbering system to determine side of hallway of a destination *Use outdoor numbering system to determine proximity to a destination	*Determine relative location of destination based on numbering system and street name (WM F.4.1) *Determine direction of travel based on numbering system *Plan simple route using indoor/outdoor numbering system	*Independently plan complex routes using indoor/outdoor numbering systems *Apply numbering system in use of commercially available maps
Traffic Concepts	*Describe basic pedestrian safety rules *Identify basic traffic controls (A3) *Identify intersection shapes *Identify parts/functions of cars, buses, and other vehicles	*Describe relevant road markings and elements (e.g., limit line, islands, medians) (FITL2) (A6) *Identify parallel and perpendicular traffic flows (FITL2) *Identify near/far lanes of traffic (A6) *Describe basic traffic patterns (FITL2) *Describe pedestrian/traffic timing at basic traffic light controls *Describe basic driver rules (e.g., right turn on red, left turn arrow) Estimate volume, speed, acceleration of traffic (S2) (S8)	*Describe complex road elements (e.g., yield access lanes, double yellow lines, slip lanes) (FITL3) *Describe complex traffic controls/phasing *Compare timed vs. actuated control traffic patterns *Describe traffic flow at one-way and atypical intersections	*Identify complex intersection configurations (e.g., roundabout) *Describe freeway/interstate systems *Describe rail systems *Describe role of traffic engineer *Describe approaches to consumer advocacy in intersection accessibility

Table 1D – Age appropriate curricular guidelines - Sensory

SENSORY	K-3	4-6	7-9	10-12
Visual Skills	*Process/analyze sensory information (AK) *Trace a stationary line *Use appropriate scanning patterns to locate people/objects while stationary *View objects eccentrically (as appropriate)	*Systematically scan the environment while moving *Track familiar moving objects	*Interpret visual cues to anticipate mobility challenges (e.g., parked car with wheel half covered = curb) *Track unfamiliar moving objects	*Independently use visual cues *Integrate selective use of visual skills
Auditory Skills	*Localize sound source *Identify/discriminate sound sources *Use basic reflected sounds for travel (e.g., identify presence of object in travel path)	*Align/square-off to sound sources *Use reflected sound to identify interior/exterior corners and recesses *Track a moving sound source	*Use reflected sounds to describe characteristics of objects (e.g., height, density) *Explain the Doppler Effect (S9)	*Integrate selective use of all auditory skills

Auditory Skills (Continued)	*Create a sound source for echolocation			
Optical and Non-Optical Device Use	*Use low power optical devices in familiar areas *Wear protective eye wear (e.g., filters) *Label the parts of a monocular or other optical device	*Independent use of optical devices for O&M activities	*Use optical devices in daily routines	*Describe needs for optical devices to optometrist or others *Select/order appropriate optical and non-optical devices
Understanding Pathology	*Offer simple explanation of how eyes do/don't work *Identify eye pathology	*Identify/describe eye pathology in simple terms *Identify/describe visual functioning	*Describe eye pathology and visual functioning in detail (S7) *Use model of the eye to describe the anatomy and physiology (S7)	*Research eye pathology

A = Azusa Unified School District Priority Goals Checklist (K-12)
FIT = Framework for Independent Travel
- Level 1 (L1) = coincides with K-3
- Level 2 (L2) = coincides with grades 4-7
- Level 3 (L3) = coincides with grades 8-12

H = California Health Standards
M = California Math Standards
S = California Science Standards
VPA = California Visual and Performing Arts Standards
WM = Wisconsin Model Academic Math Standards
WSS = Wisconsin Model Academic Social Studies Standards

Credentialed orientation and mobility instructors provide sequential instruction to individuals with a visual impairment in the use of their remaining senses to determine their position within the environment and in techniques for safe movement from one place to another, including training in the use of the white cane.

Additional Resources for Orientation & Mobility

- Beyond Arms Reach
- Body Image of Blind Children
- BRIGANCE® Inventory of Early Development
- Concept Development for Visually Handicapped Children
- Hill Performance Test of Selected Positional Concepts
- Imagining the Possibilities
- Independent Movement and Travel in Blind Children
- Instruction for Persons who Are Visually Impaired
- Move with Me
- Orientation and Mobility Techniques: A Guide for the Practitioner
- Orientation and Mobility: Techniques for Independence
- Perkins Activity and Resource Guide: A Handbook for Teachers and Parents of Students with Visual and Multiple Disabilities

- Preschool O&M Screening
- Reaching/Crawling/Walking/Let's Get Moving
- Standing on My Own Two Feet
- TAPS Curriculum
- Teaching Orientation and Mobility in the Schools
- The Oregon Project for Preschool Children who are Blind or Visually Impaired
- Where In the World Am I