

Essential Forms

THE CVI RANGE

Student/child's name: _____ Age: _____
 Evaluator(s): _____ Evaluation Date: _____

This assessment protocol is intended for multiple evaluations over a period of time. Suggested scoring (no less than three times per school year):

- a. Initial assessment (red)
 - b. Second assessment (blue)
 - c. Third assessment (green)
- Further assessments will require a new form.

Totals:	Evaluation #1 (red)	Evaluation #2 (blue)	Evaluation #3 (green)
1. Range for Rating I			
2. Total for Rating II			
3. Combine both ratings to get overall CVI Range			

0	1	2	3	4	5	6	7	8	9	10
No functional vision						Typical or near-typical visual functioning (continued)				

CVI Range (continued)

The CVI Range: Across-CVI Characteristics Assessment Method

Rating I

Rate the following statements as related to the student/child's visual behaviors by marking the appropriate column to indicate the methods used to support the scores:

- O** = information obtained through observation of the child/student
- I** = information obtained through interview regarding the child/student
- D** = information obtained through direct contact with the child/student

In the remaining columns, indicate the assessed degree of the CVI characteristic:

- **R** The statement represents a resolved visual behavior
- **+** Describes current functioning of student/child
- **+/-** Partially describes student/child
- **-** Does not apply to student/child

CVI Range 1-2: Student functions with minimal visual response

O	I	D	R	+	+/-	-	
							May localize, but no appropriate fixations on objects or faces
							Consistently attentive to lights or perhaps ceiling fans
							Prolonged periods of latency in visual tasks
							Responds only in strictly controlled environments
							Objects viewed are a single color
							Objects viewed have movement and/or shiny or reflective properties
							Visually attends in near space only
							No blink in response to touch or visual threat
							No regard of the human face

(continued)

CVI Range (continued)

CVI Range 3-4: Student functions with more consistent visual response

O	I	D	R	+	+/-	-	
							Visually fixates when the environment is controlled
							Less attracted to lights; can be redirected
							Latency slightly decreases after periods of consistent viewing
							May look at novel objects if they share characteristics of familiar objects
							Blinks in response to touch and/or visual threat, but the responses may be latent and/or inconsistent
							Has a "favorite" color
							Shows strong visual field preferences
							May notice moving objects at 2 to 3 feet
							Look and touch completed as separate events

CVI Range 5-6: Student uses vision for functional tasks

O	I	D	R	+	+/-	-	
							Objects viewed may have two to three colors
							Light is no longer a distractor
							Latency present only when the student is tired, stressed, or overstimulated
							Movement continues to be an important factor for visual attention
							Student tolerates low levels of background noise
							Blink response to touch is consistently present
							Blink response to visual threat is intermittently present
							Visual attention now extends beyond near space, up to 4 to 6 feet
							May regard familiar faces when voice does not compete

(continued)

CVI Range (continued)

CVI Range 7-8: Student demonstrates visual curiosity

O	I	D	R	+	+/-	-	
							Selection of toys or objects is less restricted; requires one to two sessions of "warm up"
							Competing auditory stimuli tolerated during periods of viewing; the student may now maintain visual attention on objects that produce music
							Blink response to visual threat consistently present
							Latency rarely present
							Visual attention extends to 10 feet with targets that produce movement
							Movement not required for attention at near distance
							Smiles at/regards familiar and new faces
							May enjoy regarding self in mirror
							Most high-contrast colors and/or familiar patterns regarded
							Simple books, picture cards, or symbols regarded

(continued)

CVI Range (continued)

CVI Range 9-10: Student spontaneously uses vision for most functional activities

O	I	D	R	+	+/-	-	
							Selection of toys or objects not restricted
							Only the most complex environments affect visual response
							Latency resolved
							No color or pattern preferences
							Visual attention extends beyond 20 feet
							Views books or other two-dimensional materials, simple images
							Uses vision to imitate actions
							Demonstrates memory of visual events
							Displays typical visual-social responses
							Visual fields unrestricted
							Look and reach completed as a single action
							Attends to two-dimensional images against complex backgrounds

CVI Range (continued)

The CVI Range: Within-CVI Characteristics Assessment Method

Rating II

Determine the level of CVI present or resolved in the 10 categories below and add to obtain total score. Rate the following CVI categories as related to the student/child's visual behaviors by circling the appropriate number (the CVI Resolution Chart may be useful as a scoring guide):

- 0 Not resolved; usually or always a factor affecting visual functioning
- .25 Resolving
- .5 Resolving; sometimes a factor affecting visual functioning
- .75 Resolving
- 1 Resolved; not a factor affecting visual functioning

	Not Resolved		Resolving		Resolved
1. Color preference	0	.25	.5	.75	1
Comments:					
2. Need for movement	0	.25	.5	.75	1
Comments:					
3. Visual latency	0	.25	.5	.75	1
Comments:					
4. Visual field preferences	0	.25	.5	.75	1
Comments:					
5. Difficulties with visual complexity	0	.25	.5	.75	1
Comments:					
6. Light-gazing and nonpurposeful gaze	0	.25	.5	.75	1
Comments:					
7. Difficulty with distance viewing	0	.25	.5	.75	1
Comments:					

(continued)

CVI Range (continued)

8. Atypical visual reflexes	0	.25	.5	.75	1
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Comments:

9. Difficulty with visual novelty	0	.25	.5	.75	1
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Comments:

10. Absence of visually guided reach	0	.25	.5	.75	1
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Comments:

CVI RANGE: PHASE III EXTENSION CHART

Approaching Literacy

This chart can be used as a guide to obtain more detailed information when a student scores 7-10 on the CVI Range, a phase in which he or she may be developing the visual skills for literacy activities. The CVI characteristics considered in this extension are difficulties with visual complexity, visual field preferences, difficulty with distance viewing, and absence of visually guided reach. No separate score is derived from the Extension; it is used to help organize appropriate interventions. This extension may not be appropriate for Phase III students who have both CVI and co-existing ocular visual impairment.

Date _____ Student's Name _____ Evaluator _____

Recognition of Salient Features with Increasing Levels of Complexity at Near							
O	I	D	R	+	+/-	-	Statement
							Visually discriminates between same and different objects ("Show me one like . . .")
							Visually recognizes same and different objects ("Show me the _____"). Recognition can be based on object name, color name, or shape
							Visually identifies object, color, or shape in three dimensions ("What is this?")
							Visually discriminates between same and different symbols in two dimensions, such as photographs
							Visually recognizes symbols in two dimensions, such as photographs
							Visually identifies symbols of two dimensions, such as photographs
							Visually discriminates "same" three-dimensional object (1 inch or smaller) from a field of 10 or fewer objects
							Visually discriminates "same" three-dimensional object (1 inch or smaller) from a field of 11 or more objects
							Visually recognizes a named object (1 inch or smaller) from a field of 10 or fewer objects
							Visually recognizes a named object (1 inch or smaller) from a field of 11 or more objects

(continued)

CVI Range: Phase III Extension (continued)

						Visually identifies objects (1 inch or smaller) from a field of 10 or fewer objects
						Visually identifies objects (1 inch or smaller) from a field of 11 or more objects
						Visually discriminates "same" two-dimensional picture or symbol from a field of 10 or fewer images
						Visually recognizes a named two-dimensional picture or symbol from a field of 11 or more images
						Visually identifies pictures or symbols from a field of 10 or fewer images
						Visually identifies pictures or symbols from a field of 11 or more images
						Visually discriminates hidden or embedded pictures or symbols when provided an identical prompt
						Visually recognizes hidden or embedded pictures or symbols when provided a verbal prompt ("Find the ____")
						Visually identifies hidden or embedded pictures or symbols without visual or verbal prompt ("Can you find the hidden pictures/symbols?")
						Visually discriminates, recognizes, and identifies faces in three dimensions
						Visually discriminates, recognizes, and identifies two-dimensional images of faces
						Visually discriminates, recognizes, and identifies their name, sight words, or communication symbols
						Visually recognizes, identifies, and functionally uses words or symbols presented in a group of two to five symbols
						Visually recognizes, identifies, and functionally uses words or symbols presented in a phrase or group of six or more symbols

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CVI Range: Phase III Extension (continued)

Recognition of Salient Features with Increasing Levels of Complexity at a Distance (O&M)						
						Visually recognizes or identifies three-dimensional landmarks in familiar indoor settings at distances up to 20 feet
						Visually recognizes or identifies three-dimensional landmarks in familiar indoor settings at distances beyond 20 feet
						Visually recognizes or identifies two-dimensional signs, symbols, or pictures in familiar indoor settings at distances up to 20 feet
						Visually recognizes or identifies two-dimensional signs, symbols, or pictures in familiar indoor settings at distances beyond 20 feet
						Visually recognizes or identifies three-dimensional landmarks in familiar outdoor settings at distances up to 20 feet
						Visually recognizes or identifies three-dimensional landmarks in familiar outdoor settings beyond 20 feet
						Visually recognizes or identifies three-dimensional landmarks in unfamiliar indoor settings up to 20 feet
						Visually recognizes or identifies three-dimensional landmarks in unfamiliar indoor settings beyond 20 feet
						Visually recognizes or identifies three-dimensional landmarks in unfamiliar indoor settings beyond 20 feet with low levels of sensory complexity
						Visually recognizes or identifies three-dimensional landmarks in unfamiliar indoor settings beyond 20 feet with high levels of sensory complexity
						Visually recognizes or identifies three-dimensional landmarks in outdoor settings beyond 20 feet with low levels of sensory complexity

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Assessment Review (continued)

Direct Assessment Guide

The following Direct Assessment guideline questions can be reviewed by the evaluator as a quick self-check of key information that must be gathered prior to the completion of the CVI Range. These questions represent behaviors frequently demonstrated by students in Phases I to III. Answers to the guiding questions may also provide useful information for report preparation.

Phase I: Building Visual Behavior

Did I check . . . ?

- Are viewed objects primarily one color?
- Are the objects similar to one another in degree of complexity?
- Is the child/student able to look toward parent or my face?
- Can the child/student simultaneously look and process other sensory information?
- Is a black or nonpatterned background required?
- Is there persistent latency?
- Is movement or shiny or reflective material required?
- Is light a significant motivator, and is it also interfering with visual attention?
- Do materials always have to be presented within 18 inches?

Phase II: Integrating Vision with Function

Did I check . . . ?

- Is the preferred color still important?
- Can the student look at two- or three-color items?
- Is movement or shiny or reflective material less critical?
- Is latency decreasing?
- Is light-gazing decreasing or resolved?
- Is look and reach occasionally completed as a single action?
- Is the child/student able to look toward or into faces?
- Is the child/student able to look while voices or music occur?
- Is the child/student able to locate an object in the presence of several additional objects?
- Does the child/student have a repertoire of objects that resemble one another?
- Does distance viewing now extend as far as 10 feet?

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Assessment Review (continued)

Phase III: Resolution of CVI Characteristics

Did I check . . . ?

- Can objects be presented against increasingly complex backgrounds?
- Are novel objects preferred over familiar objects?
- Is light-gazing almost never or never present?
- Is visually guided reach seen more frequently, or is it related to motor rather than visual issues?
- Can the child/student now use vision even in the presence of voices or music?
- Do highly complex environments (such as malls, assemblies, or parties) continue to affect visual performance?
- Is distance viewing now extended up to or beyond 20 feet?
- Are simple two-dimensional images discriminated, recognized, or identified?
- Are small objects placed on patterned backgrounds located?
- Are small, single-color images found in two-dimensional backgrounds?
- Is the child/student able to locate salient features in two-dimensional materials or in the environment?
- Is the child/student able to differentiate faces?

CVI RESOLUTION CHART

Date _____ Student's Name _____ Evaluator _____

Use the following chart to help develop areas of needs for development of IEP goals and objectives.

	Phase I: Building Visual Behavior Level I Environmental Considerations		Phase II: Integrating Vision with Function Level II Environmental Considerations		Phase III: Resolution of CVI Characteristics Level III Environmental Considerations	
	Range 1-2 (0)	Range 3-4 (.25)	Range 5-6 (.50)	Range 7-8 (.75)	Range 9-10 (1)	
CVI Characteristics	Range 1-2 (0)	Range 3-4 (.25)	Range 5-6 (.50)	Range 7-8 (.75)	Range 9-10 (1)	
Color preference	Objects viewed are generally a single color	Has "favorite" color	Objects may have two to three favored colors	More colors, familiar patterns regarded	No color or pattern preferences	
Need for movement	Objects viewed generally have movement or reflective properties	More consistent localization, brief fixations on movement and reflective materials	Movement continues to be an important factor to initiate visual attention	Movement not required for attention at near	Typical responses to moving targets	
Visual latency	Prolonged periods of visual latency	Latency slightly decreases after periods of consistent viewing	Latency present only when student is tired, stressed, or overstimulated	Latency rarely present	Latency resolved	
Visual field preferences	Distinct field dependency	Shows visual field preferences	Field preferences decreasing with familiar inputs	May alternate use of right and left fields	Visual fields unrestricted	

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CVI Resolution Chart (continued)

	Phase I: Building Visual Behavior Level I Environmental Considerations	Phase II: Integrating Vision with Function Level II Environmental Considerations	Phase III: Resolution of CVI Characteristics Level III Environmental Considerations
CVI Characteristics	Range 1-2 (0)	Range 3-4 (.25)	Range 5-6 (.50)
Difficulties with visual complexity	Responds only in strictly controlled environments Generally no regard of the human face	Visually fixates when environment is controlled	Student tolerates low levels of familiar background noise Regards familiar faces when voice does not compete
Light-gazing and nonpurposeful gaze	May localize briefly, but no prolonged fixations on objects or faces. Overly attentive to lights or perhaps ceiling fans	Less attracted to lights; can be redirected to other targets	Light is no longer a distractor
			Range 7-8 (.75)
			Competing auditory stimuli tolerated during periods of viewing; student may now maintain visual attention on musical toys Views simple books or symbols Smiles at/regards familiar and new faces
			Range 9-10 (1)
			Only the most complex visual environments affect visual response Views books or other two-dimensional materials Typical visual/social responses

Difficulty with distance viewing	Visually attends in near space only	Occasional visual attention to familiar, moving, or large targets at 2 to 3 feet	Visual attention extends beyond near space, up to 4 to 6 feet	Visual attention extends to 10 feet with targets that produce movement	Visual attention extends beyond 20 feet Demonstrates memory of visual events
Atypical visual reflexes	No blink in response to touch and/or visual threat	Blinks in response to touch, but response may be latent	Blink response to touch consistently present Visual threat response intermittently present	Visual threat response consistently present (both reflexes near 90 percent resolved)	Visual reflexes always present; resolved
Difficulty with visual novelty	Only favorite or known objects elicit visual attention	May tolerate novel objects if the novel objects share characteristics of familiar objects	Use of "known" objects to initiate looking sequence	Selection of objects less restricted, one to two sessions of "warm up" time required	Selection of objects not restricted
Absence of visually guided reach	Look and touch occur as separate functions Look and touch occur with large and/or moving objects	Look and touch occur with smaller objects that are familiar, lighted, or reflective Look and touch are still separate	Visually guided reach used with familiar objects or "favorite" color	Look and touch occur in rapid sequence, but not always together	Look and touch occur together consistently

Key:

- Draw an X through boxes that represent resolved visual behaviors
- Use highlighter to outline boxes describing current visual functioning
- Draw an O in boxes describing visual skills that may never resolve because of coexisting ocular conditions

IFSP/IEP INTERVENTION PLANNING WORKSHEET

This worksheet may be useful for IEP planning and for creating a "template" of CVI considerations that can be applied to the child/student's daily routines.

Child/student's name: _____ Date: _____

IFSP/IEP planning members: _____

CVI Range score: _____ CVI Phase: _____

Resolved CVI characteristics (check):

- color preference
- need for movement
- visual latency
- visual field preferences
- difficulties with visual complexity
 - object
 - array
 - sensory
- light-gazing and nonpurposeful gaze
- difficulty with distance viewing
- difficulty with visual novelty
- absence of visually guided reach

Unresolved CVI characteristics (check):

- color preference
- need for movement
- visual latency
- visual field preferences
- difficulties with visual complexity
 - object
 - array
 - sensory
- light-gazing and nonpurposeful gaze
- difficulty with distance viewing
- difficulty with visual novelty
- absence of visually guided reach

(continued)

CVI Range: Phase III Extension (continued)

								Visually recognizes or identifies three-dimensional landmarks in outdoor settings beyond 20 feet with high levels of sensory complexity
								Visually locates three-dimensional moving or reflective objects presented in upper, lower, right, and left peripheral visual fields
								Visually locates three-dimensional stable objects presented in upper, lower, right, and left peripheral visual fields
								Visually locates two-dimensional moving or reflective materials presented in upper, lower, right, and left peripheral visual fields
								Visually locates two-dimensional stable materials presented in upper, lower, right, or left peripheral visual fields
								Moves through familiar indoor or outdoor settings without unintended contact with walls, doorways, or objects on the floor
								Moves through unfamiliar indoor or outdoor settings without unintended contact with walls, doorways, or objects on the floor
								If appropriate, ascends and descends stairways safely and without assistance
Visually Guided Reach with Increasing Levels of Complexity								
								Visually guided reach occurs when a 1-inch target is presented on a visually noncomplex background
								Visually guided reach occurs when a 1-inch target is presented on a moderately patterned or cluttered background
								Visually guided reach occurs when a 1-inch target is presented on a nonadapted, highly patterned, or cluttered background

CVI RANGE ASSESSMENT REVIEW

This worksheet can be used as a quick review for evaluators who wish to double-check the completeness of the CVI Range.

Interview and Observation Check-Off

The following chart can be used to check off whether the presence of a medical cause for CVI has been determined as well as whether all the information has been obtained from the interview and observation portions of the assessment. (Not all characteristics are represented, only those determined by interview or observation.) For the CVI behavioral characteristics, the chart can be used as follows:

Yes: information from interview and observation suggests the possibility of the presence of this characteristic

No: information from interview and observation does not suggest the presence of this characteristic

Pending: information from interview and observation is incomplete

Recheck: information gathered from interview and observation is conflicting, more information needed

	Yes	No	Pending	Recheck
Medical cause				
Interview and observation				
Color preference				
Need for movement				
Visual latency				
Visual field preferences				
Difficulties with visual complexity				
Light-gazing and nonpurposeful gaze				
Difficulty with distance				
Atypical visual reflexes				
Difficulty with visual novelty				
Absence of visually guided reach				

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Intervention Planning Worksheet (continued)

CVI Planning Table

Daily schedule/time
and activity

CVI characteristics

CVI adaptations for this activity

Daily schedule/time and activity	CVI characteristics	CVI adaptations for this activity

Activities not considered compatible for CVI interventions:

Example:

Classroom birthday parties are primarily social events planned by student's parents and therefore not easily adapted for this student's CVI needs.

-
- 1.
 - 2.
 - 3.
 - 4.
 - 5.

CVI ORIENTATION AND MOBILITY RESOLUTION CHART

Date _____ Student's Name _____ Evaluator _____

Use the following chart to help develop areas of needs for development of IEP goals and objectives.

CVI Characteristics	Phase I: Building Visual Behavior Level I Environmental Considerations	Phase II: Integrating Vision with Function Level II Environmental Considerations	Phase III: Resolution of CVI Characteristics Level III Environmental Considerations
	Range 1-2 (0)	Range 3-4 (.25)	Range 5-6 (.50)
Color preference	Single-color environmental features may be attended to in near space	Strong single-color preference persists	Objects or environmental features that have two to three colors may now be attended to within 4 to 6 feet
Need for movement	Targets viewed have movement and/or reflective properties May be attentive to ceiling fans	Movement in the environment may distract from primary target	Movement may be needed to establish attention on target/destination
Visual latency	Prolonged periods of visual latency	Latency slightly decreases after periods of consistent viewing	Latency is rarely present
			Range 7-8 (.75)
			Range 9-10 (1)

Visual field preferences	Distinct field preferences; may use one eye for peripheral vision, the other eye for central vision	May be able to use both right and left peripheral fields but will continue to show strong preference for original peripheral field	Visual field preferences persist	Increasing use of right and left fields for near and distance activities	Visual fields unrestricted
Difficulties with visual complexity	Visually attends only in strictly controlled environments— those without sensory distractions Engages in rote, assisted travel	Visually attends to or fixates on simple targets at near (within 3 feet), with environment controlled for sensory distractors	May be able to tolerate low levels of familiar background noise while maintaining visual attention on familiar targets Engages in rote or route travel with adapted visual cues	Competing auditory stimuli tolerated during periods of viewing May travel familiar routes using naturally occurring, simple landmarks or cues	Only the most complex environments affect independent travel Environmental or traffic signs may now be useful for independent travel
Light-gazing and nonpurposeful gaze	Is overly attentive to lights Room light may have to be reduced	Is less attracted to lights; can be redirected to other targets	Light is no longer a source of distraction		
Difficulty with distance viewing	Visually attends in near space only	Occasionally attends visually to familiar, moving, or large targets in simple or familiar settings, up to 3 to 4 feet	Visual attention extends beyond near space, up to 4 to 6 feet Complexity in the environment may reduce this distance	Visual attention extends to 10 feet with targets that produce movement Color cues, movement, and size of target may be factors in visual attention	Visual attention extends beyond 20 feet Demonstrates memory of routes, cues, or landmarks and may now be able to travel independently

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CVI OeM Resolution Chart (continued)

CVI Characteristics	Phase I: Building Visual Behavior Level I Environmental Considerations		Phase II: Integrating Vision with Function Level II Environmental Considerations		Phase III: Resolution of CVI Characteristics Level III Environmental Considerations	
	Range 1-2 (0)	Range 3-4 (.25)	Range 5-6 (.50)	Range 7-8 (.75)	Range 9-10 (1)	
Atypical visual reflexes	No blink in response to touch and/or visual threat	Blinks in response to touch, but response may be latent	Blink response to touch is consistently present Blink to visual threat is intermittently present	Blink response to visual threat is consistently present May now anticipate approaching obstacles		
Difficulty with visual novelty	Responds only to familiar objects	May visually attend to objects or environmental features if they share characteristics with the familiar objects	Visually attends to landmarks or cues that are highlighted with familiar color or pattern	Selection of objects or environmental or route cues remembered after several sessions of familiarization	Selection of objects, environments not restricted or specially adapted	
Absence of visually guided reach	Reach, touch, and look occur as separate functions	Occasional visually guided reach, possibly with a single, preferred object	Visually guided reach is used with familiar materials, simple configurations, and "favorite" color	Look and reach occur in sequence, but not always together	Look and reach occur as a single action	

Key:

- Draw an X through boxes that represent resolved visual behaviors
- Use highlighter to outline boxes describing current visual functioning
- Draw an O in boxes describing visual skills that may never resolve because of coexisting ocular conditions