



Cortical Vision Impairment (CVI) Adapted Materials

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CVI - What is it?

- CVI is a term used to describe vision impairment caused by brain damage or conditions that affect the part of the brain known as the posterior visual system
- It is different from ocular vision impairments in that the pathway for visual processing is disrupted, but can improve with appropriate interventions
- CVI has ten unique characteristics which may affect how the individual perceives the world around them



Adapted Materials



Why adapt materials?

- Due to the nature of CVI, many individuals with condition may not be able to access standard material
- Interventions and accommodations based on ocular impairments will not likely provide appropriate support for individuals with CVI
- Important to provide adapted materials based on assessment



Phase I

- Individuals in Phase I are working within the dorsal stream, “where”
- They may be attracted to movement, have perception of form, and attend to light sources
- They may be able to look to specific targets, but not not be able to process the visual information



Phase I – General adaptations

- Use the individual's preferred colour
- Pair target objects with light
- Provide an element of movement
- Use familiar objects
- Use three-dimensional objects
- Place targets in isolation against a plain black background



Phase II

- Individuals in Phase I are working within the ventral stream, “what”
- They may be developing vision to see detail
- They may be developing discrimination, recognition and identification of familiar objects



Phase II – General adaptations

- Use colour as a visual anchor
- Light may still be necessary for more sustained visual attention
- Individuals may begin to locate familiar targets in more complex environments – use interest levels to motivate development



Phase III

- Individuals in Phase III are may present with more typical visual functioning
- May continue to have difficulty with complexity and distance viewing
- May need higher levels of accommodations in the classroom



Phase III – General adaptations

- Consider positioning in relation to light sources – note that light may continue to support viewing
- Additional accommodations may be required for new learning or complex environments



Examples



Phase I Examples

- Examples of materials that may need to be adapted include:
 - Books
 - Communication systems
 - Methods to direct attention
- Examples of adaptations used:
 - Trifold board
 - Cutout box
 - Attention focussers



Phase II Examples

- Examples of materials that may need to be adapted include:
 - Books
 - Communication systems
 - Methods to direct attention
- Examples of adaptations used:
 - Photos of familiar objects paired with three-dimensional objects
 - Occluder
 - Attention focuser
 - Black background
 - Colour as a visual anchor



Phase III Examples

- Examples of materials that may need to be adapted include:
 - Books
 - Communication systems
 - Worksheets
- Examples of adaptations used:
 - Adapted ruler
 - Highlighted lines
 - Colour as a visual anchor



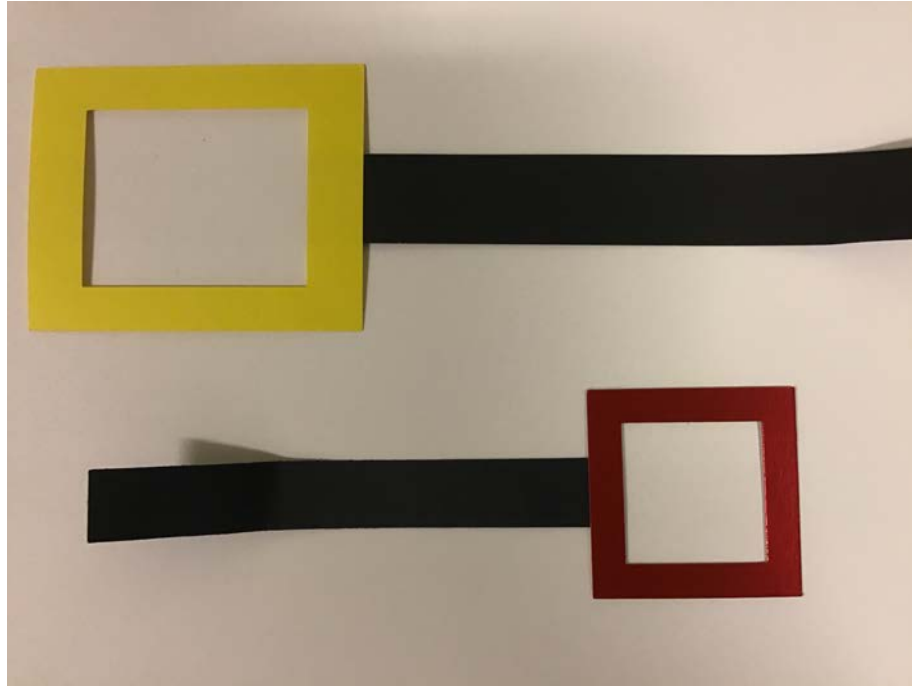
Trifold board



Cutout box



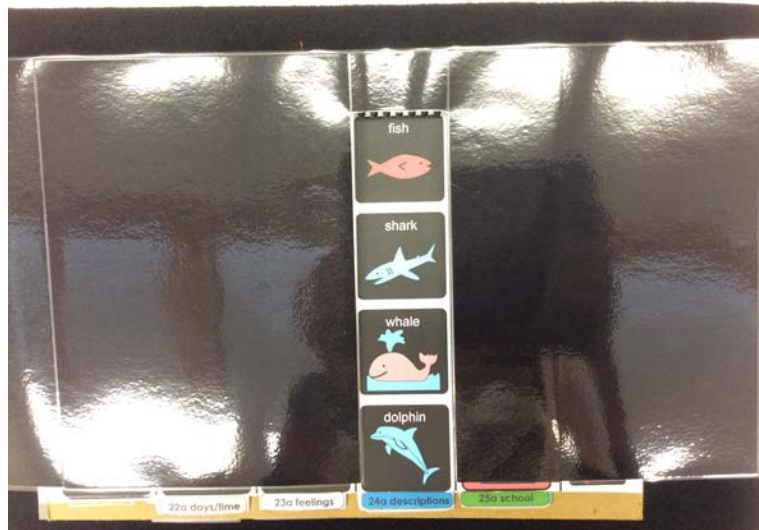
Attention focusser



Adapting books - commercial



Supporting access to communication



Creating a personalised book



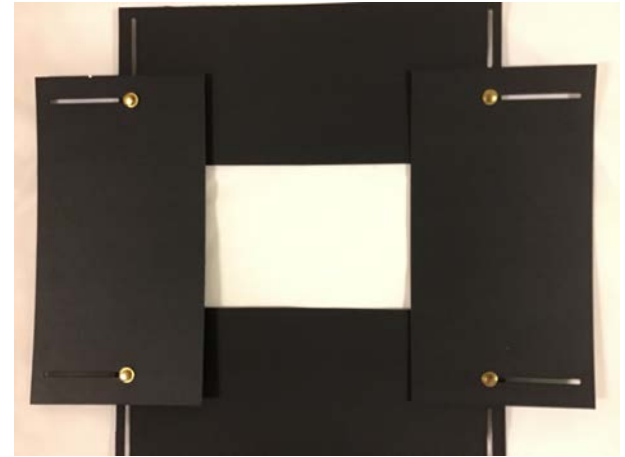
Christmas examples



More Christmas examples



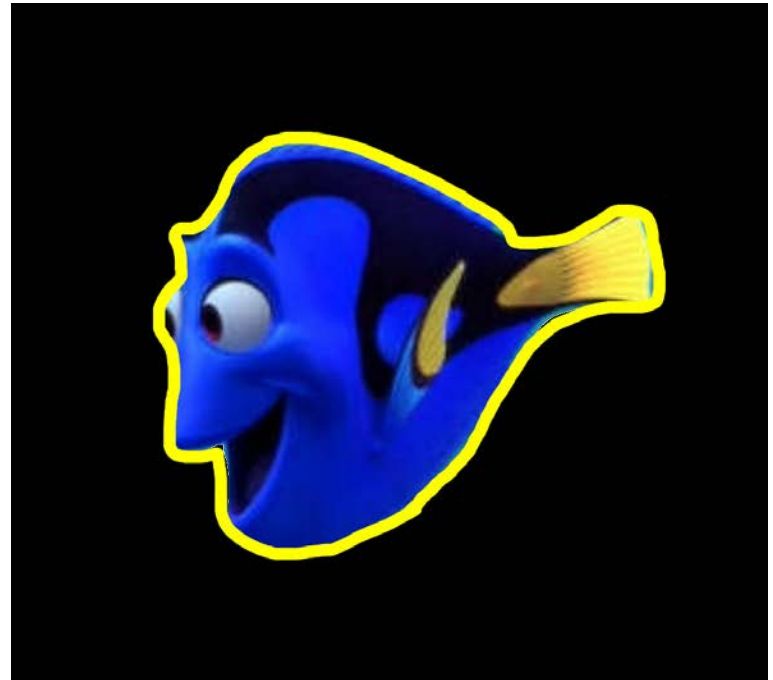
Occluder



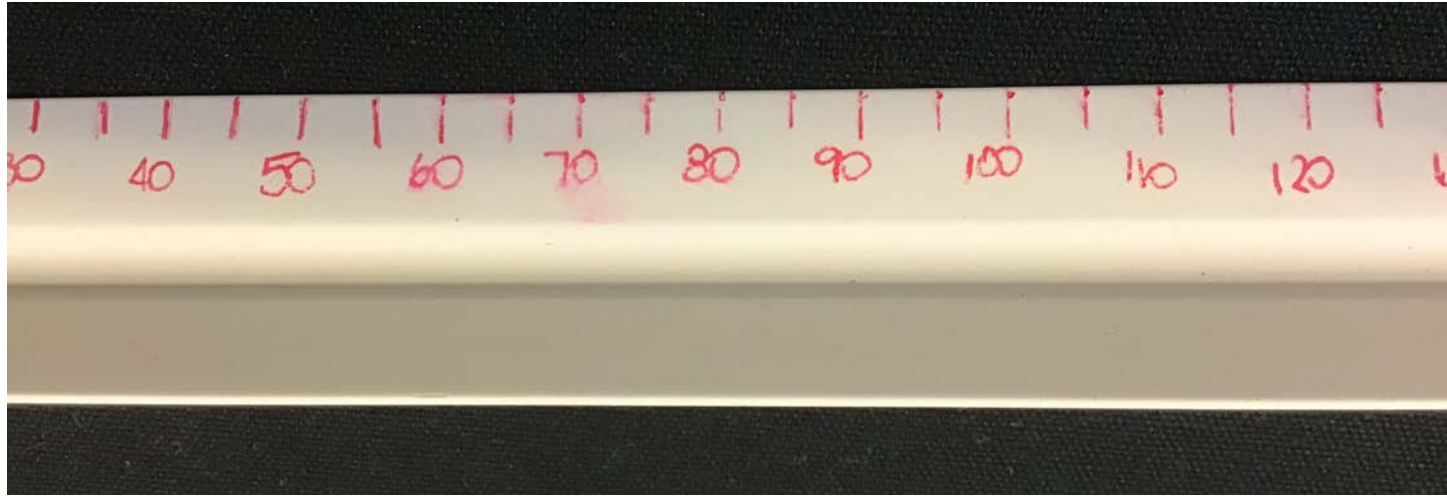
Occluder in action



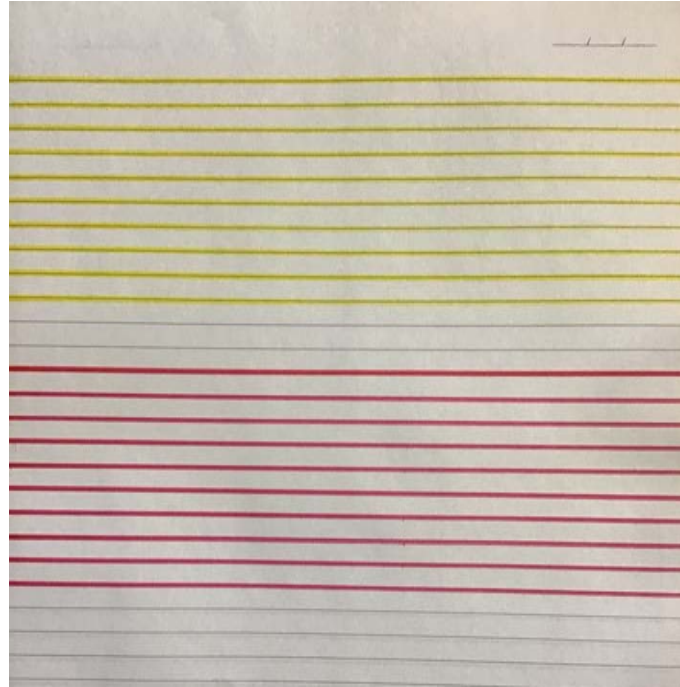
Colour as a visual anchor



Adapted ruler



Highlighted lines



iPad apps

- YouDoodle+
- Little Bear Sees
- Big Bang Patterns
- Big Bang Pictures
- Sparkabilities



Websites

- CVI Teacher: <https://cviteacher.wordpress.com>
- Paths To Literacy: <https://www.pathstoliteracy.org>
- Start Seeing CVI: <https://startseeingcvi.com>
- Strategy To See: <https://strategytosee.com>

Books

- Romsn-Lantzy, C. (2019). *Cortical visual impairment: Advanced principles*. Louisville, KY: AFB Press.
- Roman-Lantzy, Christine (2018). *Cortical visual impairment: An approach to assessment and intervention* (2nd Ed.). New York: AFB Press.
- Roman-Lantzy, Christine (2007). *Cortical visual impairment: An approach to assessment and intervention*. New York: AFB Press.
- Tallent, A., Tallent, A., & Bush, F. (2012). *Little bear sees: How children with cortical visual impairment can learn to see*. Little Bear Sees Publishing.



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