# Adapting Science for Students with Visual Impairment/Blindness: Related Websites and References

Compiled by Linda Stirrett, M.Ed., September 2008

- "Access & Technology: Making Science Accessible to Blind Students" by Marc Krizack, *Disability World*<a href="http://www.disabilityworld.org/June-July2000/access/Science.html">http://www.disabilityworld.org/June-July2000/access/Science.html</a>
- "Accessible Science Labs" by Karen Milchus, Center for Assistive Technology and Environmental Access, Georgia Tech., Atlanta, GA http://www.colorado.edu/ATconference/Milchus-Colorado1.htm
- "Adapting Hands-On Science Programs for Students with Disabilities" by Nicholas Simone, Erin Vozzola, and Lynn Worobey (25 April 2007) <a href="http://www.wpi.edu/Pubs/E-project/Available/E-project-042907-213933/unrestricted/IQP-HXA-A073-CSIRO.pdf">http://www.wpi.edu/Pubs/E-project/Available/E-project-042907-213933/unrestricted/IQP-HXA-A073-CSIRO.pdf</a>
- "Adapting Science for Students with Visual Impairments A Handbook for the Classroom Teacher and Teacher of the Visually Impaired" American Printing House for the Blind, 7-08855-00 <a href="http://www.perkins.org/accessiblescience/resources/books.html">http://www.perkins.org/accessiblescience/resources/books.html</a>
- "Blind Kids Do Science Too". *The Braille Monitor*, October 2005. <a href="http://www.nfb.org/lmages/nfb/Publications/bm/bm05/bm0509/bm050904.">http://www.nfb.org/lmages/nfb/Publications/bm/bm05/bm0509/bm050904.</a>
  <a href="http://www.nfb.org/lmages/nfb/Publications/bm/bm05/bm0509/bm050904.">http://www.nfb.org/lmages/nfb/Publications/bm/bm05/bm0509/bm050904.</a>
- "Blind Students And Practical Science" by Kathryn E. Hill, *Future Reflections*, NFB Press, Fall 1995, Vol. 14 No. 3 http://www.nfb.org/images/nfb/Publications/fr/fr14/Issue3/f140308.html
- "Dennis Fantin Full Interview" by Scott Roark, *Cal Poly Magazine Online*<a href="http://www.calpolynews.calpoly.edu/magazine/fall-07/Chemistry-Fantin.html">http://www.calpolynews.calpoly.edu/magazine/fall-07/Chemistry-Fantin.html</a>
- "Feeling the Chemistry", by Scott Roark, *Cal Poly Magazine Online*<a href="http://www.calpolynews.calpoly.edu/magazine/fall-07/Chemistry.html">http://www.calpolynews.calpoly.edu/magazine/fall-07/Chemistry.html</a>
- "Low-Cost Laboratory Adaptations for Precollege Students Who Are Blind or Visually Impaired" by Cary A. Supalo et.al. *Journal of Chemical Education*, Vol. 85 No. 2 February 2008, http://research.chem.psu.edu/mallouk/articles/JCE2008p0243.pdf

## Penn State University:

"Independent Laboratory Access for the Blind" <a href="http://ilab.psu.edu">http://ilab.psu.edu</a>

"Techniques and Tools to Enhance Blind and Visually Impaired Students' Participation in High School Level and General Chemistry Laboratory Classes" <a href="http://ilab.psu.edu/labtools.html">http://ilab.psu.edu/labtools.html</a>

#### Perkins School for the Blind:

"Teaching Accessible Science: Engaging students who are blind or visually impaired" <a href="http://perkins.org/accessiblescience/">http://perkins.org/accessiblescience/</a>

"Science Education" <a href="http://perkins.org/clearinghouse/science/">http://perkins.org/clearinghouse/science/</a>

### Royal National Institute for the Blind:

"Advice for a mainstream science teacher"

http://www.rnib.org.uk/xpedio/groups/public/documents/publicwebsite/publiccessciencelv.hcsp

"Making use of other senses to help teach science"

<a href="http://www.rnib.org.uk/xpedio/groups/public/documents/publicwebsite/publiccesscienceeos.hcsp">http://www.rnib.org.uk/xpedio/groups/public/documents/publicwebsite/publiccesscienceeos.hcsp</a>

"Teacher tips: essential science equipment" <a href="http://www.rnib.org.uk/xpedio/groups/public/documents/publicwebsite/publiccesscienceeq.hcsp">http://www.rnib.org.uk/xpedio/groups/public/documents/publicwebsite/publiccesscienceeq.hcsp</a>

"The Teaching of Science and Mathematics to the Blind" <a href="http://www.rnib.org.uk/xpedio/groups/public/documents/Visugate/public\_teachsci.hcsp">http://www.rnib.org.uk/xpedio/groups/public/documents/Visugate/public\_teachsci.hcsp</a>

"Topic spotlight: teaching light"
<a href="http://www.rnib.org.uk/xpedio/groups/public/documents/publicwebsite/publiccesciencelight.hcsp">http://www.rnib.org.uk/xpedio/groups/public/documents/publicwebsite/publiccesciencelight.hcsp</a>

"Working safely in science - experiments with blind and partially sighted pupils"

http://www.rnib.org.uk/xpedio/groups/public/documents/publicwebsite/publicccsciencesafe.hcsp

Sci-Train: a Website dedicated to barrier-free science and math instruction. http://www.catea.gatech.edu/scitrain/

"Science Activities for the Visually Impaired/Science Enrichment for Learners with Physical Handicaps"

http://www.lawrencehallofscience.org/cml/saviselph/

- "Science for Students with Visual Impairments: Teaching Suggestions and Policy Implications for Secondary Educators". Kumar, Ramasamy, and Stefanich. *Electronic Journal of Science Education*, Vol. 5, N3, March 2001. <a href="http://wolfweb.unr.edu/homepage/crowther/ejse/kumar2etal.html">http://wolfweb.unr.edu/homepage/crowther/ejse/kumar2etal.html</a>
- "Seeing the Possibilities: Blind chemistry students get a taste of independence in the lab" by Linda Wang, *Chemical & Engineering News*, July 23, 2007, Volume 85, Number 30, pp. 36-40. http://pubs.acs.org/cen/education/85/8530education1.html
- "Strategies for Teaching Students with Vision Impairments". Eberly College of Arts & Sciences, West Virginia University. http://www.as.wvu.edu/~scidis/vision.html
- "Teaching Chemistry to Students with Disabilities: A Manual for High Schools, Colleges, and Graduate Programs" 4th Edition by Dorothy L. Miner et.al., American Chemical Society Committee on Chemists with Disabilities, 2001, ISBN 0-8412-3817-0 http://membership.acs.org/c/cwd/TeachChem4.pdf
- "Teacher's Manual for Adapting Science Experiments for Blind and Visually Impaired Students". By Dion, Hoffman, and Matter, *Worcester Polytechnic Institute*, May 5, 2000. <a href="http://www.tsbvi.edu/Education/Manual2.doc">http://www.tsbvi.edu/Education/Manual2.doc</a>
- Texas School for the Blind and Visually Impaired. http://www.tsbvi.edu/recc/science.htm
- Working Chemists with Disabilities: Expanding Opportunities in Science by Michael Woods, Co-Editors: Todd Blumenkopf, Virginia Stern, Anne Barrett Swanson, H. David Wohlers
  <a href="http://membership.acs.org/c/cwd/workchem/start.htm">http://membership.acs.org/c/cwd/workchem/start.htm</a>

## Accessible Science Products Links

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Ohaus Scout Pro (SP202) scale, with USB interface (71147377) = www.ohaus.com

Vernier LabPro interface, LoggerPro software, and sensors/probes = www.vernier.com

Corning Stirrer/Hotplate (6797-220) = www.coming.com
Canadian vendor for Vernier and Ohaus = www.merlan.ca
Canadian vendors for Corning = www.sargentwelch.ca, www.fishersci.ca

JAWS text-to-speech = www.freedomscientific.com

ZoomText magnification software = www.aisquared.com

Canadian vendors for JAWS, ZoomText = www.aroga.com, www.humanware.com, www.frontiercomputing.on.ca

Boreal USB microscopes = www.boreal.com

BRIGHT Interactive Atom kit = www.brightsite.se

Canadian vendor for BRIGHT = www.boreal.com

Rainin pipette (AR-M2), tips = www.rainin.com

American Printing House for the Blind (source of adapted materials) www.aph.org