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NLS Reference Circulars

Braille Literacy: Resources for Instruction, Writing Equipment, and Supplies

Issued 2004

Introduction

This reference circular lists instructional materials, supplies, and equipment currently available for learning braille, and cites sources about braille literacy. The resources given are intended to assist sighted individuals who are interested in learning braille or want to transcribe print materials into braille; instructors who teach braille; persons with visual impairments who are interested in learning to read and write braille; and family members, friends, and professionals who desire information about braille literacy.

Unless otherwise indicated, items listed in this circular are not part of the National Library Service for the Blind program, and their listing does not imply endorsement. Prices are subject to frequent change and should be verified with the supplier before ordering. Complete addresses of sources are listed in Section VI: Addresses of Sources.

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I. Resources for Braille Instruction

(Full addresses are in section VI.)

A. Braille Code Books

Code books are the official documents that set forth rules of usage for, or the transcription of, the various types of braille (literary, mathematics, computer, and music) in the United States. The Braille Authority of North America (BANA) provides current information about all braille codes www.brailleauthority.org.

Literary braille code

English braille, American edition, 1994; revised 2002. Compiled under the authority of the Braille Authority of North America. Louisville: American Printing House for the Blind. \$20 print or braille, CD-ROM edition available from Opus Technologies. \$49.

Chart of contractions, selected symbols, and simplified rules. Compiled by the Illinois Braille and Sight Saving School, Jacksonville, IL, 1959. Available from the American Printing House for the Blind, \$2.72 braille.

Guidelines for linear braille format. Compiled by the Braille Authority of North America. Louisville: American Printing House for the Blind, 1987. \$2.50 print or braille. Braille transcribers certified by the Library of Congress may obtain braille or print copies free on request from the Braille Development Section (BDS), National Library Service for the Blind and Physically Handicapped.

Mathematics braille code

Nemeth braille code for mathematics and science notation, 1972 revision. Compiled by the American Association of Workers for the Blind, Association for the Education of the Visually Handicapped, the National Braille Association, and the Braille Authority of North America. Louisville: American Printing House for the Blind, 1972. \$40 print or braille.

Addendum 1 to the Nemeth braille code for mathematics and science notation, 1972 revision: Ancient Numeration Systems. Adopted by the Braille Authority of North America; transcribed by Von E. Eulert, American Red Cross Braille Service. Louisville: American Printing House for the Blind, 1991. \$5 print or braille.

Reference sheet. Louisville: American Printing House for the Blind. \$2.50 print or braille.

Braille code for chemical notation. Louisville: American Printing House for the Blind, 1997. \$20 print or braille.

Computer braille code

Computer braille code: 2000. Compiled by the Braille Authority of North America. Louisville: American Printing House for the Blind, 2000. \$20 print or braille.

The Computer braille code made easy. 3rd ed. Boston: National Braille Press, \$7 print or braille. Step-by-step guide on the computer code. Includes tips on how to read e-mail and web addresses.

Flowchart design for applicable braille codes supplements. Compiled by the Braille Authority of North America. Louisville: American Printing House for the Blind, 1992. \$17 print or braille.

Music braille code

Music braille code. Compiled by the Braille Authority of North America. Louisville: American Printing House for the Blind, 1997. \$41 print or braille. Also available from National Braille Association.

B.Instruction for Transcribers and Teachers

Manuals, guidebooks, and teaching materials

Literary braille

Alphabetical index of braille signs. Arranged for braillewriter and slate work. Louisville: American Printing House for the Blind. \$2.50 print.

Braille: a code for success; a comprehensive tutorial for the National Literary Braille Competency Test. Compiled by the International Braille Research Center, National Federation of the Blind, and the National Library Service for the Blind and Physically Handicapped. Washington: U.S. Dept. of Education, Rehabilitation Services Administration, 1999. Print or braille available free from National Federation of the Blind.

Braille codes and calculations. By Mary Ellen Pesavento. Berkeley, CA: Pesavento Press. Revised 1997. Although sold separately, *Braille Codes and Calculations* and *Dot Writing* are designed to be used together. Available from Exceptional Teaching Aids, \$72; with *Dot Writing* \$86.95.

Braille enthusiast's dictionary. Compiled and edited by M. Cay Holbrook and Alan J. Koenig. Germantown, TN: Scalars Publishing, 1995. \$65 print, plus \$3.50 shipping.

Braille formats: principles of print to braille transcription, 1997. Developed under the sponsorship of the Braille Authority of North America. Louisville: American Printing House for the Blind, 1998. \$30 print (three volumes) or braille (twelve volumes).

Braille letter drill. By H.R. Latimer, revised by Marjorie Hooper. Louisville: American Printing House for the Blind, 1943. \$4.96 print; \$7.92 print/braille.

Braille transcribing workbook. By Norma L. Schecter. Huntington Beach, CA: Beach Cities Braille Guild, 1992. \$7 plus \$2 shipping, print. Used with lessons in braille transcribing.

The Burns braille transcription dictionary. By Mary F. Burns. New York: AFB Press, 1991. \$19.95 print.

Chart of braille characters and contractions. By Bernard M. Krebs. Louisville: American Printing House for the Blind, 1968. \$25 braille.

Dot writing. Available from Exceptional Teaching Aids. \$16.95. Includes a systematic introduction to standard English braille plus practice words and sentences.

The computerized braille tutor. By Gaylen Kapperman, and others. Alexandria, VA: Association for Education and Rehabilitation of the Blind and Visually Impaired (AER). \$11 for AER members; \$21 for non members (Canadian orders, add \$2.50/tutor; overseas orders, add \$5/tutor).

Instruction and practice for the basic literary braille code. (Requires DOS computer with a hard drive that can allocate five megabytes of memory.)

English braille grade 2 contractions: word signs, short form words, punctuation, and composition signs. Louisville: American Printing House for the Blind, 1960. 63¢ print; 27¢ braille, up to five copies free. The print version of this guide is also known as the alphabetical index of braille signs.

Handbook for learning to read braille by sight. By Leland Schubert. Louisville: American Printing House for the Blind, 1968. \$20.40 print.

Instruction manual for braille transcribing. Revised edition by Constance Risjord, John Wilkinson, and Mary Lou Stark. Washington: Library of Congress, 2000. Free to enrollees in the Library of Congress correspondence course. Also available from the American Printing House for the Blind. \$26.50 print, \$136 braille.

Drills reproduced in braille: supplement to instruction manual for braille transcribing, 2000. Produced in braille for the Library of Congress. Available from American Printing House for the Blind. \$8 braille.

Lessons in braille transcribing. By Bernard Krebs. Louisville: American Printing House for the Blind, 1978. \$6.50 print, \$50.60 braille. Addendum, \$1 print, \$3.60 braille.

Literary braille practice sentences. By Dorothy Quenten Joseph; revised by Roberta Becker and Phillip Mangold, 1994. Castro Valley, CA: Exceptional Teaching Aids. \$17.95 print, plus \$4.25 shipping.

NBA literary braille refresher course for teachers and transcribers. Rochester, NY: National Braille Association, revised 2002. \$50 print; \$158.40 braille for individuals; \$391.50 braille for all others. Assists teachers preparing for state or national competency tests, and transcribers and proofreaders wishing to sharpen their braille skills.

New programmed instruction in braille. 3rd ed. By Samuel C. Ashcroft, LaRhea Sanford, and Alan Koenig. Germantown, TN: Scalars Publishing, 2001. \$60 print, plus \$3.50 shipping. Integrates, cross references, and summarizes current English Braille, American edition rules. Provides tests and answer keys to facilitate learning independently or with a class or instructor. A companion reader with correlated chapter readings in tactile braille is available.

Quick reference list of braille signs. Compiled by the Louis Braille Center. Edmonds, WA: Louis Braille Center. \$5 braille and print, \$4 braille only. Includes reference lists of the braille alphabet, numbers, contractions, and composition and punctuation signs.

Quick reference manual, to accompany braille formats: principles of print to braille transcription. Rochester, NY: National Braille Association, 1997. \$20 print for

members, \$40 non members, \$75.80 braille for individuals, \$186.50 for all others.

Rehabilitation teaching braille textbook review. By Cheryl Richesin. Alexandria, VA: Association for Education and Rehabilitation of the Blind and Visually Impaired (AER). \$30 for AER members; \$40 for non-members. Available in print, large print, and on disk. Canadian orders, add \$6/book; overseas orders, add \$12/book. Developed as a resource manual for rehabilitation teachers who teach braille readers.

Signs and rules of English braille. Compiled by the Louis Braille Center. Edmonds, WA: Louis Braille Center. \$12 print with simulated braille. A basic handbook covering uncontracted and contracted braille. Includes the alphabet, numbers, punctuation, and contractions with simplified rules of usage, Roman numerals, and special symbols. Concepts are illustrated with examples. Suitable as a self-teaching book for beginners or as a reference book for those with some knowledge of braille.

Mathematics braille

Braille transcribers' kit: math. Louisville: American Printing House for the Blind. \$12. Raised-line graphics of commonly occurring figures for transcribing of elementary math books. Master sheets contain five each of rulers, number lines, protractors, unlabeled thermometers, clock faces, as well as three sizes of low-relief graph paper. Master sheets can be thermoformed to provide multiple copies of figures.

Computerized Nemeth code tutor. By Mario Cortesi, and others. Alexandria, VA: Association for Education and Rehabilitation of the Blind and Visually Impaired (AER), \$11 for AER members; \$21 for non-members; overseas orders add \$2/book.

Cracking the Nemeth code. By Michael Czerwinski. Newark: New Jersey Commission for the Blind and Visually Impaired, 1978. Available from Metropolitan Chapter, American Red Cross. \$65.74 includes print and braille.

Guidelines for mathematical diagrams, including number lines addendum. By Braille Authority of North America. Rochester, NY: National Braille Association 1983, 1990 addendum. \$22 print, \$56.40 braille for individuals, \$136.50 braille for all others.

An introduction to braille mathematics. By Helen Roberts, Bernard Krebs, and Barbara Taffet. Washington: Library of Congress, 1978. Available from the American Printing House for the Blind. \$50.85 print, \$114.40 braille. Errata, 1995. \$25 braille.

Learning the Nemeth braille code: a manual for teachers and students. By Ruth H. Craig. Salt Lake City: Brigham Young University Press, 1979. Available from American Printing House for the Blind. \$32 print or braille.

Multiplication and division table. Louisville: American Printing House for the Blind, 2000. \$25 braille.

Nemeth code reference sheet. Louisville: American Printing House for the Blind. \$2.50 print; \$5 braille.

Nemeth reference sheets. Boston, MA: National Braille Press, 2003. \$14.95 print or braille; \$25 print/braille.

Strategies for developing mathematics skills in students who use braille. By Toni Heinze, Gaylen Kapperman, and Jodi Sticken. Alexandria, VA: Association for Education and Rehabilitation of the Blind and Visually Impaired (AER). \$20 for AER members; \$30 for non-members; Canadian orders add \$2/book; overseas orders, add \$10/book; \$25 with the Nemeth code tutor.

Music braille

Introduction to braille music transcription. By Mary Turner De Garmo. Washington: Library of Congress, braille edition 1970, braille addenda 1974 and 1983; print edition including addenda, 1974; addenda, 1974 and 1983. Available from the American Printing House for the Blind. \$75.19 print; \$1.83 print addenda for 1983 only; \$124.80 braille; \$6.80 braille addenda.

Lessons in braille music. By H.V. Spanner. Louisville: American Printing House for the Blind, 1961. \$4.73 print, \$43.20 braille, \$22 exercises only. Used in connection with the revised International manual of braille music notation, 1956.

New international manual of braille music notation, 1997. Compiled by Bettye Krolick. Amsterdam: Braille Music Subcommittee, World Blind Union. Available from Opus Technologies. \$79 print, \$89 braille, \$149 CD-ROM.

Foreign language braille

Contracted German: the reformed German braille contractions. By Adam Heinz. Louisville: American Printing House for the Blind, 1972. \$10.80 braille.

Interim manual for foreign language braille transcribing. By Barbara H. Tate and others. Rochester, NY: National Braille Association, 2002. \$16 print for NBA members, \$248 braille non members.

NLS Correspondence Courses and the National Braille Competency Test

The Braille Development Section of the National Library Service for the Blind and Physically Handicapped (NLS), Library of Congress, offers free correspondence courses leading to certification in braille transcribing or proofreading, provides certification for those who successfully complete training through other programs, and administers the National Literary Braille Competency Test to applicants who wish to demonstrate competence in the application of literary braille. Interested persons are encouraged to enroll in a locally sponsored braille class, if possible; however, correspondence instruction is available for persons who do not have local options or who prefer to study through correspondence. Instructional materials for each course are provided free. Individuals must purchase equipment and paper; sources for these items are listed in Sections III and IV. To enroll in one of the courses, request an application form from Braille Development Section, National Library Service for the Blind and Physically Handicapped, braille@loc.gov.

Literary braille transcribing

Instruction in the formation and rules for the use of braille letters, numbers, contractions (braille abbreviations for letter groups), and other braille signs used in transcribing general, nonscientific literature from print into braille. Consists of nineteen lessons and a final examination. Completion of the course earns the Library of Congress literary braille transcribing certificate. This course is a prerequisite to all other transcribing courses.

Prerequisite: applicants must be citizens or residents of the United States and must have a high school diploma or equivalent.

Application for certification as a literary braille transcriber

Mathematics braille transcribing

Instruction in the braille signs, rules, and concepts used to transcribe mathematics and scientific texts into braille. Consists of sixteen lessons and a final examination.

Completion of the course earns the Library of Congress mathematics braille transcribing certificate.

Prerequisites: general eligibility for braille courses; Library of Congress certification in literary braille; minimum of six months transcribing experience as a certified braillist transcribing textbooks.

Application for certification as a mathematics (Nemeth code) braille transcriber

Music braille transcribing

Instruction in the braille signs, rules, and concepts used to transcribe conventional print music notation into braille. Course consists of thirty-four lessons, a preparatory exercise for the final examination, and the final examination. Completion of the course earns the Library of Congress braille music transcribing certificate.

Prerequisites: general eligibility for Library of Congress braille courses; Library of Congress certification in literary braille transcribing; a minimum of six months transcribing experience as a Library of Congress certified literary braille transcriber; ability to read accurately moderate to complex conventional music notation.

Application for certification as a music braille transcriber

Literary braille proofreading

Instruction in the special techniques and the code rules required to proofread literary braille transcriptions. Includes lessons assigned from the Library of Congress literary braille transcribing manual, five proofreading lessons, and a final examination. Completion earns the Library of Congress literary braille proofreading certificate.

Prerequisites: general eligibility for Library of Congress braille courses; broad reading experience with braille books and materials; ability to read and write braille, using correct character formation and literary braille format; ability to type 25 words per minute without error.

Application for certification in literary braille proofreading

Mathematics braille proofreading

Instruction in the braille signs, rules, and concepts required to proofread mathematics braille transcriptions. The course consists of sixteen lessons and the final examination. Completion earns the Library of Congress mathematics braille proofreading certificate.

Prerequisites: general eligibility for Library of Congress braille courses; Library of Congress certification in either literary braille proofreading or mathematics braille transcribing; ability to type 25 words per minute without error.

Application for certification in mathematics (Nemeth code) braille proofreading

National literary braille competency test

Examines general knowledge and use of the literary braille code; designed primarily for individuals who teach children and adults who are blind or visually handicapped. Prerequisites: United States citizenship or residency; either a passing grade on at least one college-level braille course, or successful completion of the Library of Congress literary braille transcribing course through Lesson 14, or five years of experience in reading and writing braille.

University Courses and Local Volunteer Classes

Colleges and universities that offer special education or rehabilitation training related to visual impairments often provide classes for learning braille. A listing of the colleges and universities offering courses in education of visually impaired and deaf-blind students and in orientation and mobility is available at www.aerbvi.org or contact the

Association for Education and Rehabilitation of the Blind and Visually Impaired (AER).

Local volunteer groups that teach braille transcribing

The directory *Sources of custom-produced books: braille, audio recordings, and large print* lists organizations and volunteer groups that transcribe braille or teach transcribing classes. The directory is online at www.loc.gov/nls/reference/directories/sources.html, in web-braille at www.loc.gov/nls/reference/directories/sources1.brf, or available in large print or hardcopy braille from the Reference Section, National Library Service for the Blind and Physically Handicapped.

Links to Courses on the Internet

This listing does not imply NLS endorsement or verification of accuracy.

BRL -- Braille through remote learning www.brl.org

A series of three integrated online courses in braille and braille transcribing: Introduction to braille: transcribers course, and specialized codes course. BRL is a project of the Shodor Education Foundation, Inc. www.shodor.org.

Braille review www.vhighline.net/braille

Created for transcribers or instructors to review basic braille codes and contractions.

Braille school www.brailleschool.com/index.php

Also known as BRL (Blindness Related Learning). Provides web-based communication learning tools for the visually impaired, their friends, and family; offers the ability to learn blindness-related subjects such as braille at one's own pace; all services are free.

The computerized braille tutor www.tsbvi.edu/Education/index.htm#Braille

Self-study literary code materials for transcribers or instructors to download.

The Nemeth code tutor www.tsbvi.edu/math/math-resources.htm

Self-study Nemeth code materials for transcribers or instructors to download.

C. Instruction for Braille Readers (Adults and Children)

Resources for reading readiness

Beginning with braille: first hand experiences with a balanced approach to literacy. By Anna M. Swenson. New York: AFB Press, 1998. \$45.95, paperback and ASCII disk.

Provides activities for promoting literacy at the early stages of braille instruction, includes strategies for designing and delivering braille instruction, and offers suggestions for tasks such as reading aloud to young children, selecting and making early tactile books, and teaching tactile and hand movement skills. Also provides tips for designing worksheets, introducing braille contractions, teaching the use of the braillewriter, and facilitating the writing process in braille.

Learning media assessment of students with visual impairments: a resource guide. By Alan J. Koenig and M. Cay Holbrook. Austin: Texas School for the Blind and Visually Impaired, 1995. \$25 print or braille.

Designed for teachers and diagnosticians working with visually impaired students of all ages, including students with additional disabilities, to assess and evaluate appropriate learning and literary media for them. Featured topics: use of sensory channels and determining types of general learning media.

Lots of dots: learning my ABC's. Louisville: American Printing House for the Blind, 2003. \$24.

A raised-line coloring book designed to facilitate braille character recognition through repetitive activities. Each page consists of a jumbo braille cell, upper and lowercase letters shown with their braille equivalents, and a tactile graphic depiction of an easy-to-find object that begins with that letter.

On the way to literacy: early experiences for visually impaired children. By Josephine M. Stratton and Suzette Wright. Louisville: American Printing House for the Blind, 1991. \$15.95 print handbook, \$219.95 for the complete braille set.

Consists of a print handbook for parents and teachers and ten storybooks in braille and in print that feature tactile and visual illustrations and provide practice in refining finger and hand skills. The handbook and storybooks can be purchased separately or as a complete package.

Patterns prebraille program. By Hilda Caton, Eleanor Pester, and Eddy Jo Bradley. Louisville: American Printing House for the Blind, 1987. \$28.95 braille (complete kit). A sequential readiness program designed for use generally at the preschool or kindergarten level, before students begin a basic braille reading program.

Touch and tell. By Betty Duncan. Louisville: American Printing House for the Blind, 1969.

A three-volume set and a booklet of teacher instructions. Embossed illustrations of simple objects helps a child learn concepts such as left and right shapes, size, number, and tracking across the page. For ages five to six.

Tools and Games for Learning to Read and Write Braille

BrailleMaster™ talking braille tutor. Jericho, NY: Independent Living Aids, Inc. \$295.

Introduces students to groups of braille characters or words with similar characteristics. As the buttons representing the characters are pressed, a voice identifies the character. Nineteen lessons provide a logical progression covering the alphabet, numbers, punctuation, single cell-letter combination contractions, single-cell whole word contractions, dot-preceded contractions, and seventy-three standard abbreviated words.

Speech assisted learning (SAL). Castro Valley, CA.: Exceptional Teaching Aids, Inc. Available from Freedom Scientific Blind/Low Vision Group. \$4,595 complete curriculum.

A braille instruction method using speech-assisted learning on an interactive braille instruction station. Consists of a pressure-sensitive platform, electronic braille keyboard, stereo speakers, compact flash, standard disk drive, earphone jack, volume control, speech-rate control, microphone, foot pedal, and rechargeable battery. The station recognizes braille from worksheets and speaks appropriate directions.

Tack-Tiles® braille systems. Plaistow, NH: Tack-Tiles® Braille Systems, LLC. \$695.

Consists of 320 TACK-TILES®, four slates that hold eight rows of twenty tiles, two slates that hold four rows of ten tiles, and a carrying case. Literary braille sets in English, French, German, Italian, and Spanish. Sets are also available for nonliterary braille codes: Nemeth, music, and computer notation. TACK-TILES® may be used with or as a supplement to most standard and established braille-instruction techniques.

The Braille game board. St-Lambert, Quebec, Canada: Rudbecom Inc., \$79.99 US.

A learning tool for braille readers to invent and play games while sharpening their braille skills. Consists of a pegboard grid with which to create words.

Additional tools and games for learning to read and write braille are available from American Printing House for the Blind, Braille Institute of America, and Exceptional Teaching Aids.

Also consult *Guidelines and games for teaching efficient braille reading*. By Myrna R. Olson and Sally Mangold. New York: AFB Press, 1981. \$24.95 print.

Manuals and Guidebooks for Learning to Read and Write Braille

Literary braille code

ABCs of braille. By Bernard Krebs. New York: Jewish Guild for the Blind, 1973. Available from American Printing House for the Blind. \$77 braille. \$25 teacher's guide.

Beginning braille for adults. By Ramona Walhof. Baltimore: National Federation of the Blind, 1996. \$10 braille manual with instructional cassette.

Braille: a different approach. By Jeff Weiss and Johnette Weiss. Louisville: American Printing House for the Blind, 1984. \$34.88 braille. Volumes 1 and 2, contracted braille. 1984. \$25 per braille volume. Instructor's manual, 1984. \$25 braille, \$3 cassette.

Braille beginnings: a phonics based braille reading series. By Karen Condie. Published in cooperation with Utah Schools for the Deaf and the Blind. Available from Karen Condie.

Designed to make learning to read braille fun. Consists of a series of eighty phonics-based lessons in three levels that teach braille contractions. Provides story or prose work pages for independent work and word search or braille art activities. Each level includes a separately priced workbook, student text, and teacher's manual.

Braille by touch: a home-study course in uncontracted braille. By the Louis Braille Center. Edmonds, WA: Louis Braille Center. \$10-40.

Consists of three braille books and three corresponding large- print books on basic braille concepts, practice readings in uncontracted braille, and instructions on using various types of numbers. Books may be purchased separately or in combinations. Designed as a self-teaching course for individual study or for small groups and classes for blind and sighted persons who wish to learn braille together.

The Braille code: a guide to grade three. By Ruth Hayden. Louisville: American Printing House for the Blind, braille edition, 1958; print edition, 1976. \$25 print; \$38 braille; available on loan from network libraries, BRA18831.

The Braille connection: a reading and writing program for former print users (formerly Read again). Developed by American Printing House for the Blind (APH) and the National Federation of the Blind (NFB). Louisville: American Printing House for the Blind, 1998. Complete kit. \$163.50 print, \$204.50 braille. Workbooks and practice book can be purchased individually or in combination.

Designed to teach former adult and teenage print readers how to read braille. Guides students through tactual discrimination to uncontracted braille and then through contracted braille. For use under the supervision of a gualified braille teacher.

Braille FUNdamentals: a braille curriculum for students from primary to high school levels. By Jeri Cleveland, Nancy Levack, Debra Sewell, and Renée Toy. Austin: Texas School for the Blind and Visually Impaired, 2002. Prices range from \$20 for the assessment to \$400.

A comprehensive program for teaching the braille code to beginning braille readers or to those readers who need to learn braille when they are older. Four volumes cover primary, upper elementary, middle school, and high school levels with age-appropriate activities included at each level. Includes pre braille assessment, braille checklists, and ideas for games. Can order individual volumes or the complete set.

Braille in brief. Jumbo dot edition. By Bernard Krebs. New York: Jewish Guild for the Blind, 1973. Available from Braille Institute of America. \$53.20 print/braille. Braille in brief kit. 1968. \$13.62 braille.

Braille series, books I-III. Program for teaching braille reading to blind adults. Jackson, IL: Illinois Braille and Sight Saving School. Available from American Printing House for the Blind, 1992. \$5.59, book I, uncontracted braille, one side; \$7.25, book II, beginning contracted braille, one side; \$8.51, book III, completing contracted braille,

interpoint. (Print editions of books I-III are printed parallel to the braille line-for-line and page-for-page). Practice materials. \$2.70 print, \$16.28 braille.

Stories progress from uncontracted to slightly contracted braille and from much enlarged to standard braille. The practice materials are sold separately (fifteen stories) and relate to specific pages of the three books in the series.

Braille too! Cedar Rapids, IA: Grant Wood Area Education Agency. \$215 complete instructional program.

An instructional braille reading and writing program for secondary students. It includes six hundred pages of reading material and almost two hundred pages of writing practice. Sample packets are available free of charge.

Braille writing dot by dot kit. Louisville: American Printing House for the Blind. Contains: Teacher's manual (ten basic lessons in each writing method, three beyond the basics lessons); exercise cassette with dictation exercises; alphabet; braille reference sheet; peg slate and big cell (teaching device for the slate). \$42 print kit; \$47 braille kit. Comprehensive instruction in writing braille with either a braillewriter or a slate and stylus. Appropriate for blind children or adults who want to learn to write braille.

Discovering braille: a workbook for beginning readers. By Michael Czerwinski. Newark: New Jersey Commission for the Blind and Visually Impaired, 1977. Available from Metropolitan Chapter, American Red Cross. \$30 includes print and braille. Workbook of special signs. \$30 includes print and braille.

Getting in touch with reading: a fresh approach. By Margaret M. Smith. Louisville: American Printing House for the Blind, 1993. \$25 braille. Jumbo braille edition available from Braille Institute of America.

Designed for beginning braille readers.

A guide to the slate and stylus. By Jennifer Dunnam. Baltimore: National Federation of the Blind, 2000. \$8 braille, \$14 print; available on loan from network libraries, BR13457.

Advocates the use of the slate and stylus as a means of taking braille notes before learning electronic methods. Provides suggestions and exercises to assist in becoming proficient in this skill, which is equivalent to writing with a pen or pencil.

Just enough to know better: a braille primer. By Eileen P. Curran. Boston: National Braille Press, 1988. \$15 print/braille.

A self-paced workbook that teaches just enough braille for one to learn to identify the braille alphabet, numbers, contractions, and even a few exceptions to the rules.

Kester braille. By Louise Johnson. Orem, UT: Louise Johnson. The Level 1 and Level 2 teacher's guide and student workbooks are \$25 each, print. An introductory braille instruction manual written to teach braille reading and writing for children ages four to eight can be adapted for older children who have difficulty learning.

Key to grade three braille. By Louis Rodenberg. Louisville: American Printing House for the Blind, braille edition 1945; print edition 1977. \$18.20 print, \$16 braille; available on loan from network libraries, BRA18832.

Learning to read braille contractions. By Michael Czerwinski. Newark: New Jersey Commission for the Blind and Visually Impaired, 1975. Available from Metropolitan Chapter, American Red Cross, \$34.32 includes print and braille. Workbook. 1977. \$39.52 includes print and braille.

The McDuffy reader: braille primer for adults. By Sharon Duffy. Baltimore: National Federation of the Blind. \$15 braille or print (pictures of the dot formations); teacher's guide, \$10 braille, print, or cassette.

Modern methods of teaching braille. By Claudell Stocker and others. Book one: Kansas braille reading-readiness book, student's text (braille only). Book two: Braille

reading simplified, student's text (braille only). Teacher's manual (braille and print). Louisville: American Printing House for the Blind, 1970. Book one, \$24.96 braille only; book two, \$22.08 braille only; teacher's manual 76¢ print, \$10.56 braille.

Patterns: the primary braille reading program. By Hilda Caton. Louisville: American Printing House for the Blind, 1980, 1982. Has six levels, from readiness to the third reader level. Each level consists of pupil and teacher texts, worksheets, and post tests. \$64.95-\$206.95 price range for kits for each level.

Patterns library series. By Eleanor Pester and others. Louisville: American Printing House for the Blind, 1980. Practice books designed to follow each level of the Patterns program. Each kit contains twenty-two to twenty-seven books. \$49.95-\$85.95 braille kits.

Print and braille literacy: selecting appropriate learning media. Edited by Hilda Caton. Louisville: American Printing House for the Blind, 1991. \$5.50 print, \$14.50 large print, \$10.50 braille.

Teaching the braille slate. By Phillip Mangold. Castro Valley, CA: Exceptional Teaching Aids, 1993. \$15 print.

Tools for selecting appropriate learning media. Edited by Hilda Caton. Louisville: American Printing House for the Blind, 1994. \$26 print, \$28.75 large print, \$45 braille.

The world at my fingertips. By Norma L. Schecter. Huntington Beach, CA: Beach Cities Braille Guild 1985.

Braille with facing print pages. Free to rehabilitation counselors and other agencies working with blind adults. A jumbo-braille primer on jumbo braille intended for blind adults with loss of tactile sensitivity.

Music braille code

Braille music chart. New revised edition. Compiled by Edward W. Jenkins. Louisville: American Printing House for the Blind, 1960. \$2.33 print; \$12.32 braille.

Dictionary of braille music signs. By Bettye Krolick. Washington: Library of Congress, Music Section, 1979. Available on free loan from NLS Music Section.

How to read braille music. By Bettye Krolick. San Diego: Opus Technologies, 1998. \$12.95 print, \$19.95 braille, \$79 CD-ROM. Also available from Dancing Dots. \$19.95 braille, \$79 CD-ROM; braille edition on loan from NLS Music Section, BRM 29811.

An introduction to music for the blind student: a course in braille music reading, Parts I and II. By Richard Taesch. Valley Forge, PA: Dancing Dots. The full set includes three print volumes and four braille volumes. \$249 part I, \$179 part II.

Part I is an instructional course-curriculum in music fundamentals, music reading, sight singing, theory, and ear-training using the braille music code as the medium. Part II includes a detailed set of "theory examinations" and a separate volume of exercises in the form of single-line melodies, duets, and canons.

Primer of braille music. Revised edition. Compiled by Edward W. Jenkins. Louisville: American Printing House for the Blind, 1960 with 1971 addendum. \$24.95 print, \$17.28 braille.

Who's afraid of braille music? A short introduction and resource handbook for parents and students. By Richard Taesch and William McCann. Valley Forge, PA: Dancing Dots. \$10 print and braille.

Designed for teacher or parent of a blind student who has an interest or need to learn to read braille music, or for a blind musician who wants to know more about how music looks in braille, and to learn to read, write, play, and sing music using braille.

Foreign-language braille code

Manual for Spanish braille. By D. Goodlin. Allentown, PA: Lehigh Valley Braille Guild, 1978. Available from the American Printing House for the Blind. \$23.85 braille.

Correspondence Courses for Learning to Read and Write Braille

The Hadley School for the Blind offers several tuition-free home- study courses to help newly blinded persons acquire skills in communication, with a special emphasis on braille. Academic credits are given for some courses. Courses are available in braille and on audio cassette:

- Braille Placement. One lesson. Assesses the competency of a student with previous braille experience.
- Braille Reading I. Twenty-four lessons.
- Braille Reading II. Twenty-eight lessons.
- Braille Reading Review. Five lessons.
- Braille Writing. Ten lessons.
- Essentials of Nemeth. Nine reading exercises, nine writing exercises.
- Grade 3 Braille. Thirty-five lessons. Highly contracted braille for note taking and speed writing.
- Music Notation. Twenty-eight lessons. Instruction in reading the braille music code.
- Rapid Braille Reading. Nine lessons. Techniques to increase speed and comprehension in reading braille. Good fully contracted braille-reading ability required.
- Relevant Braille. Five lessons. How to read and write uncontracted braille for taking personal notes and telephone numbers.

To enroll or for more information contact Hadley School for the Blind.

Local Training Resources and Links to Online Courses

Classes or personal assistance for learning to read and write braille are offered by most state commissions and lighthouses for the blind and other rehabilitation agencies. A local library or telephone operator can provide the telephone number of the nearest agency.

The Nemeth Code Tutorial

www.freedomscientific.com/fs_downloads/notenemeth.asp

A free tutorial for braille readers and persons who may be interested in using braille note-taking devices to study the Nemeth Code.

Braille school or blindness-related courses

www.brailleschool.com/index.php

Do-it-yourself course in text format for those who use a screen reader to learn braille at their own pace.

II. Books, Articles, and Videos Related to Braille Literacy and Braille Instruction (Full addresses are in section VI.)

Beginning with braille: a balanced approach to literacy. By Anna M. Swenson. New York: AFB Press, 1998. \$39.95 print and ASCII disk.

Braille into the next millennium. Published jointly by the Library of Congress, National Library Service for the Blind and Physically Handicapped and the Friends of Libraries for Blind and Physically Handicapped Individuals in North America. Washington: National Library Service for the Blind and Physically Handicapped, 2000. Free, print; braille (BR 13188) and cassette (RC 50969) on loan from regional libraries.

Anthology of articles by international braille experts.

Braille literacy curriculum. By Diane P. Wormsley. Philadelphia: Overbrook School for the Blind. \$36, plus shipping and handling, print.

Presents strategies for incorporating braille into the total curriculum for blind students. Includes resources, references, tips, and techniques for making braille come alive for the students.

Determining the reading medium for students with visual impairment: a diagnostic teaching approach. By Alan J. Koenig and M. Cay Holbrook. Journal of visual impairment and blindness, v. 83, June 1989: 296-302.

Determining the reading medium for visually impaired students via diagnostic teaching. By Alan J. Koenig and M. Cay Holbrook. Journal of visual impairment and blindness, v. 85, Feb. 1991: 61-68.

DOTS for braille literacy. Atlanta: AFB National Literacy Center.

A free newsletter published three times a year that includes information about new braille-related products, strategies for teaching, and resources for teachers, family members, and others interested in braille literacy.

Handbook for itinerant and resource teachers of blind and visually impaired students. By Doris M. Willoughby and Sharon L.M. Duffy. Baltimore: National Federation of the Blind, 1989. 533p.

Library of Congress certification in braille transcribing through distance learning. Houston, TX: Region IV Education Service Center, 1994. Twenty-one videotapes. \$630.

A parent's quide to the slate and stylus. By Barbara Cheadle. Future reflections, v. 13, fall 1994: 6-14.

"Prebraille readiness." *Future reflections*, v. 10, winter-spring 1991: 13-16.

Print and braille literacy: selecting appropriate learning media. By Hilda Caton. Louisville: American Printing House for the Blind, 1991.

"Print...braille...literacy." *Journal of visual impairment and blindness*, v. 83, June 1989: 288-313.

"A process approach to teaching braille writing at the primary level." By Anna M. Swenson. Journal of visual impairment and blindness, v. 85, May 1991: 217-221.

The reading fingers: life of Louis Braille, 1809-1852. By Jean Roblin, translated from the French by Ruth Mandalian. Edmonds, WA: Louis Braille Center. \$14 print or braille.

See/hear. A quarterly newsletter of the Texas School for the Blind and Visually Impaired (TSBVI) for families and professionals on visual impairments and deafblindness.

Specifications for selecting a vocabulary and teaching method for beginning braille readers. By Hilda Caton, Eleanor Pester, and Sharon Goldblatt-Bensinger. Louisville: University of Louisville and American Printing House for the Blind, 1979.

Teaching braille: a creative and practical art. By Ruth Dean Zulli. Dialogue, v. 32, summer 1993: 14-18.

Understanding braille literacy. New York: AFB Press, 1993. Twenty-five-minute video. \$39.95 plus \$4.50 shipping.

The war of the dots. By Robert B. Irwin. New York: AFB Press, 1970. 56p.

World braille usage. UNESCO and the National Library Service for the Blind and Physically Handicapped. Washington: Library of Congress, 1990. 124p. Free. Print.

The world under my fingers: personal reflections on braille. Edited by Barbara Pierce. Baltimore: National Federation of the Blind, 1995. Free. Discusses who should learn braille, usefulness of braille, the value of learning braille as a child, reflections on braille, what is braille, and what does it mean to a blind person.

III. Awareness Resources

(Full addresses are in section VI)

For individuals who have family members or classmates who read braille, or for students who wish to gain awareness of communication avenues for blind persons.

The braille is beautiful curriculum. Baltimore: National Federation of the Blind. Available at www.nfb.org/bibsite/bibenter.htm. \$250.

Provides a basic knowledge of braille and an awareness of blindness for children in grades four through six. Includes instruction and student workbooks, two video presentations, sets of slates and styli, braille paper, books written by blind persons on the topic of braille, a teacher's guide, plastic sheets for creating braille labels, braille alphabet cards, quizzes, and interactive games.

Braille literacy: issues for blind persons, families, professionals, and producers of braille. By Susan J. Spungin. New York: AFB Press, 1990. 12p.

Braille for the sighted. By S. Harold Collins. Eugene, OR: Garlic Press. \$6.95 print. Also available from some local bookstores. A thirty-two-page book in a puzzle and game format that uses simulated braille to teach the alphabet and numbers.

The braille trail: an activity book. By Frances Mary D'Andrea, and Anna M. Swenson. New York: AFB Press. 42p. \$30.

Designed to teach sighted children about braille and to encourage literacy among all children. It includes braille sheets, fifty Braille Bug alphabet cards, a parent/teacher guide, games, graphics, activities, the biographies of Helen Keller and Louis Braille, and information about braille, and assistive technology.

Braille workbox. Edmonds, WA: Louis Braille Center. \$38.

A four-part unit consisting of print and simulated braille that contains the story of Louis Braille, an explanation of the fundamentals of braille, exercises for reading simple words and sentences, four pages of braille to provide the experience of reading by touch, a lesson in braille writing with a slate and stylus, a braille alphabet card, and a book in embossed braille with a print translation of either *The Night Before Christmas, The Shoemaker and the Elves,* or *Aesop's Fables.*

Discovering the magic of reading: Elizabeth's story. Louisville: American Printing House for the Blind, 1995. Twenty-five minute video. Request price. A pre-literate exposure to braille for parents of visually impaired preschoolers.

The secret code (Rookie Readers). By Dana Meachen Rau, and illustrated by Bari Weissman. Published by Children's Press, 1998. Available from Amazon.com through the SpedEx web site at www.spedex.com/text/store/literacy/9.htm. \$13.30 print.

Oscar, a blind boy, explains to his classmates that his books are not written in secret code, but in braille. The braille alphabet is illustrated so that sighted children can learn to recognize the letters and decipher a note that Oscar sends to a friend. Reading level, ages 4-8, 32p.

Braille alphabet cards may be obtained from the following sources; contact the organizations regarding price:

- American Foundation for the Blind, AFB Press, Order Department
- American Printing House for the Blind
- National Braille Press
- National Federation of the Blind, Materials Center
- National Library Service for the Blind and Physically Handicapped (free)

Links to online awareness resources

- The Braille alphabet: www.nbp.org/alph.html
- Braille bug: www.afb.org/braillebug/
- Braille on the Internet: www.nyise.org/braille.htm
- Facts: About Braille: www.loc.gov/nls/reference/factsheets/braille.html

IV. Sources of Equipment and Accessories for Reading and Writing Braille (Full addresses are in section VI)

A. Manual equipment

Braillewriters and Accessories

Perkins Brailler, standard manual \$595, electric \$855

Perkins Unimanual Brailler (for persons limited to the use of one hand), \$645

Perkins large-cell brailler, manual, jumbo dot \$685, \$930 electric

Extension keys for Perkins brailler, \$35.50

Narrow-paper adapter for Perkins brailler, \$14.75

Dymo tape holder, \$23.75

Line scale, \$17.50

American Printing House for the Blind (quota funds only)

Braille Institute of America

Howe Press of Perkins School for the Blind

TAJ Braille Typewriter; portable, lightweight, similar to Perkins braillewriter, \$475, plus \$10 shipping/handling Maxi Aids

Slates and Styluses

A wide assortment of slates and styluses is produced for a variety of uses. Slates generally come in one-line, four-line, six-line, and eight-line models and vary in the number of cells per line. Styles include E-Z Read slate, pocket slate, desk slate, playing-card slate, correction slate (for transcribers), jiffy slate, cassette-labeling slate, loose-leaf pocket-notebook slate. Although the standard stylus accompanies all slates, various additional styluses are available. Examples include reversible stylus, regular stylus, pencil stylus, and flat stylus. Slates and styluses are also available for jumbo braille.

American Printing House for the Blind

Braille Institute of America

Howe Press of Perkins School for the Blind

Independent Living Aids

Lighthouse International Store

LS&S Group

Maxi Aids

National Federation of the Blind

Royal National Institute for the Blind

B. Computer-related equipment

Computer-related equipment is constantly changing and improving. Please contact the companies listed for information on new equipment.

Braille displays and notetakers

Braille displays provide braille access to computers by converting the information on a computer screen into braille. In response to information from the computer, braille is produced on the display by pins that are raised and lowered (refreshed) in combinations to form braille characters. When used with screen access programs, braille displays allow users to access any portion of the screen information. They are commonly available in twenty-, forty-, or eighty-character braille-cell configurations of six or eight dots each. Some displays are portable and battery-powered.

Braille notetakers are portable devices that allow a user to take notes by inputting standard braille characters using a braille-style or QWERTY keyboard. Some of these devices also allow users interaction with the text through synthesized speech, a braille display, or both. Some allow the text to be edited and translated from the braille characters to their print equivalents.

ALVA Braille Terminal (ABT)

Runs with MS-DOS, IBM OS/2, Windows 95/98, Windows NT, and UNIX. Comes in different models: a portable, battery-operated model with forty-three braille cells and a desktop version with either forty-five or eighty-five braille cells. Has extra status cells so one hand can monitor status information and attributes and the other hand can read the text on the display.

Adaptive Technology, \$3,495; \$4,795; \$9,995 PulseData HumanWare, \$4,695; \$7,395; \$9,995

ALVA Delphi series

Consists of three models: ALVA Delphi 440 is portable and has forty-three cells (three status cells); ALVA Delphi 440D desktop model has forty-five cells (five status cells); and ALVA Delphi 480 desktop model has eighty-five cells (five status cells).

Adaptive Technology, \$5,295; \$10,495

Electronic Vision Access, \$5,030.25; \$9,970.25

Keyboard Alternatives, \$5,795; \$10,995

PulseData HumanWare, \$5,295; \$10,495

ALVA Satellite series

Comes in two models: ALVA 544 Satellite is portable with forty-four braille cells, four navigation front keys, and ten replaceable and rechargeable penlight batteries; ALVA 570 Satellite Pro has seventy braille cells and six navigation front keys.

Adaptive Technology, \$6,295; \$9,995

Electronic Vision Access, \$5,980.25; \$9,495.25

GW Micro, \$6,295; \$9,995

PulseData HumanWare, \$6,245; \$9,995

Braille Lite

Comes in two models: M20 has a twenty-cell, refreshable eight-dot braille display and M40 has a forty-cell, refreshable eight-dot braille display. Both feature built-in 56K baud modem, internal speech synthesizer, and POP 3 e-mail capability. Stores up to eight hundred pages of braille in up to forty-one files and features parallel printer-port capability.

Bartimaeus, \$3,495

Enabling Technologies, 70BSLITE, \$3,395; 70BSBLT4, \$5,495

Freedom Scientific, \$3,495; \$5,595

Keyboard Alternatives, \$3,445; \$5,495

BrailleNote

A personal data assistant that provides a choice of output options by combining a braille display and speech. Available with either eighteen or thirty-two cell refreshable braille display. Serves as a braille terminal for a PC. One-handed mode for people with limited manual mobility. Other features include cursor routing, key navigation by line, sentence, or paragraph, word processing and translation between braille and text formats including Microsoft Word, sending and receiving e-mail with attachments, reading e-books in standard braille or text formats, in any level of braille.

PulseData HumanWare

- BrailleNote 32 (Braille keyboard), \$5,799
- BrailleNote PK \$4995
- BrailleNote 18 Braille keyboard. \$4,099
- BrailleNote QT32 \$5,899 Windows-style keyboard
- BrailleNote QT18 \$4,199 Windows-style keyboard

Braille-n-Print

Connects to a printer and produces a braille and print copy of documents created on a modified Perkins Brailler. Has 22K of memory allowing up to four files to be stored and printed at a later time. Available in two models: the Slimline snaps to the bottom of a Perkins and the Mark 2M allows multi-user settings.

LS&S Group, \$995

PulseData HumanWare, \$995

Braille 'n Speak

Converts data entered through a braille-style keyboard into speech. It features a braille-to-print "back translator." Can be connected to a computer or modem and can also be configured with an external disk drive. Available in eleven languages. Two models.

Freedom Scientific, \$1,299, \$1,399

LS&S, \$995, \$1,299

Braille Voyager (HumanWare)

Has a USB port and a macro program, called Tieman Express, to control the computer from the display regardless of the compatible screen reader being used. Gives the user eight command keys logically configured as braille writing keys.

Adaptive Technology, \$4,999-\$9,999

Electronic Vision Access, \$5,034.05-\$9,499.05

PulseData HumanWare, \$5,299-\$9,999

Braille Wave (Handy Tech)

Features include forty concave braille cells with routing keys, status cells that can be switched on according to requirements, serial port, and three-hour charging time. Can run twenty hours on a battery.

Adaptive Technology, \$4,995

Braille Window (HumanWare)

Has two models: a portable model with forty-five eight-dot cells and a desktop model with eighty-five eight-dot cells. Both models allow users to navigate Windows or DOS.

Adaptive Technology, \$5,699; \$10,899

Electronic Vision Access, \$10,354.05

PulseData HumanWare, \$10,899

BRAILLEX (Papenmeier)

Offers two-dimensional displays that show the structure of the computer screen for users who are visually impaired. Works with screen-reader programs. Available in different models: EL 40p has forty cells with integrated cursor routing keys; EL 2D-40 has forty cells and a thirteen-cell vertical display; EL 2D-66 has sixty-six cells and a thirteen-cell vertical display; EL 2D-80 has eighty cells and a twenty-cell vertical display; EL 2D-80 has forty cells.

Electronic Vision Access, \$4,275-\$13,371.25

Sighted Electronics, \$4,500-\$14,075

BRAILLEX EL, BRAILLEX EL Braille Assistant (ELba)

A twenty or thirty-two cell, eight-dot braille notetaker, available with either a braille or a QWERTY-type keyboard for refreshable braille and easily understood speech in different languages. Features built-in modem, Ethernet port or 802.11b wireless internet support, 32 MB of flash memory, 32 MB RAM, a multi-tasking Linux operating system with a word processor, e-mail, Internet browser, day-planner, address book, and scientific calculator.

Sighted Electronics, Inc. Call for price.

DM 80 plus (Baum)

Display features eighty braille cells and four status elements, six pre-defined mode switches, and user-definable function keys for macros and overlays. Has optional speech output. Includes serial and parallel interfaces and the option of installing a special interface card.

Baum. Call for price.

Liber Braille Display (VisuAide)

Gives access to a forty-character window on the computer screen. Offers a range of screen-review commands. Has modules for braille display with eighty-four, forty-four, or twenty-four braille elements; a braille keyboard; and a sixteen-key function pad or speech module that can be combined to create a personal system.

Adaptive Technology, \$10,995

VisuAide, \$4,195

PowerBraille

Versions include PowerBraille 40, a forty-character, eight-dot display for PB40 notebook or desktop computers; PowerBraille 65, a sixty-five- character, eight-dot braille display for desktop computers; and PowerBraille 80, an eighty-one-character, eight-dot braille display for desktop computers.

Adaptive Technology, \$4,495; \$8,565; \$10,550

Electronic Vision Access, \$4,270.25; \$8,136.75; \$10,022.50

Keyboard Alternatives, \$5,950; \$8,615

RBT40 Refreshable Braille Terminal

A forty-cell display with tactile function switches for movement of the cursor and six function keys for commands.

Electronic Vision Access, \$5,125.25

Vario (Baum)

Can be used with a PC-laptop or -desktop system. Works with Windows-based software packages. Comes in a forty-cell and eighty-cell version.

Baum, call for pricing

GW Micro, \$4,800; \$9,800

Braille embossers

Braille embossers produce tactile braille output. They differ in such factors as embossing speed, line width, and type and weight of paper. Embossers may print on either one or two sides of the paper and may produce either six- or eight-dot braille.

Prices given are subject to change without notice and may not include shipping and handling and other charges that may be incurred. Please contact the companies directly (see address section) to verify current prices and product specifications.

Braille Blazer

Embosses at 15 characters per second in either six- or eight-dot braille. Has a built-in speech synthesizer. Can be used to configure the Blazer or as a stand alone speech device. The embosser is supported by most popular screen-reading packages. Handles paper up to 8-1/2 inches wide, in any length.

Freedom Scientific, \$1,695

Braille BookMaker

An interpoint desktop embosser. Runs at 80 characters per second and can be used with various paper stock. Commands can be issued from its calculator-style keypad and confirmed by tones.

Enabling Technologies, \$10,500

Braille Express 100 and 150

An upgraded version of the braille BookMaker embossing at 100 and 150 characters per second, respectively.

Enabling Technologies, \$15,995

Braillo Comet

Embosses at 50 and 75 characters per second. Includes graphics access and serial and parallel ports.

American Thermoform Corporation, M4/0-0060, \$3,795

Braillo 200 and 400

Embosses interpoint and single-sided braille. Produces 600 and 1200 pages an hour, respectively. Utilizes standard continuous fanfold paper.

American Thermoform Corporation, M4/0-0200, \$36,995; M4/0-0400, \$77,995.

Dot and Print

Produces braille and print on the same page simultaneously. Has braille-only or print-only options and a speed of 50 characters per second.

American Thermoform Corporation, \$3,950

ΕT

Is similar to the Juliet Classic, but has a shorter 40-character line and more speed.

Enabling Technologies, \$3,795

PulseData HumanWare, \$3,795

Index Basic-D

Produces two-sided braille text or graphics at 100 characters per second using continuous tractor-feed paper.

American Thermoform Corporation, M7/E-0200, \$3,695

Sighted Electronics, \$3,695

Index Basic-S

Is similar to Index Basic-D, but embosses one-sided at 50 characters per second.

Sighted Electronics, \$2,995

Index Everest-D

Acts as a two-sided printer using single-sheet paper, embossing 91 characters per second or 340 pages per hour.

American Thermoform Corporation, M7/E-0100, \$4,295

Sighted Electronics, \$4,295

Index 4x4 PRO

Embosses at 100 characters per second or 380 pages per hour to produce magazines, books, and newspapers in a saddle-stitch binding format.

http://www.loc.gov/nls/reference/circulars/brailleliteracy.html

Sighted Electronics, \$8,140

Juliet Classic, Pro and Pro60

Has a speed ranging from 55 to 60 characters per second, two-sided embossing, and graphics capabilities. Can use standard and variable paper sizes and weights.

Enabling Technologies, \$3,795; \$4,095 for Pro or Pro60

PulseData HumanWare, \$3,795

Marathon

Runs at 200 characters per second. Is equipped with both serial and parallel ports to allow interface with virtually any computer system or host device.

Enabling Technologies, \$14,995

Mountbatten Brailler

Can be used as an embosser, a braille writer, or a notetaker. Can type braille directly into an electronic memory rather than on paper. Has a forward translation system that translates print into braille and a back translation system for the braillist who wants a print copy. Can be driven by an external keyboard for one-handed use.

PulseData HumanWare, \$3,695-\$3,945

Paragon

Has an operating speed of 40 characters per second or 120 pages per hour. Allows text embossing in either the vertical or horizontal axis.

PulseData HumanWare, \$3,295

Porta-Thiel

Embosses two-sided six- and eight-dot braille on single sheets, continuous forms, plastic, and magazine sheets. Uses a built-in speech synthesizer to signal when paper is out and waits for more to be inserted. Has both serial and parallel interfaces.

Sighted Electronics, \$1,995 single-sided, \$2,835 double-sided

Romeo RB-25 and RB-40 (classic)

Embosses one-sided braille at 25 and 40 characters per second, respectively.

Enabling Technologies, \$2,495-\$2,995 and \$3,795 respectively

PulseData HumanWare, \$2,495

Thiel IMPACTO 600

Offers six- or eight-dots collating or continuous two-sided printing at a rate of 600 pages per hour.

Sighted Electronics, \$37,000

http://www.loc.gov/nls/reference/circulars/brailleliteracy.html

Thomas

Has a speed of 40 characters per second. Can combine graphics or tactile pictures with text and print them on a separate sheet without stopping.

Enabling Technologies, \$3,295-\$3,595

TIGER (Tactile Graphics Embosser)

Embosses text into braille and reproduces graphics in tactile form simultaneously. Uses a standard Windows graphics-capable printer driver that allows printing from any application running in the Windows 95, 98, or NT environment.

ViewPlus Technologies, \$9,750

VersaPoint Duo

Embosses either six- or eight-dot braille and tactile graphics at 60 characters per second across its forty-character-line length in one- or two-sided mode.

Freedom Scientific, \$3,795-\$4,045

WinBraille

Supports Index embossers. Provides a software package that allows for braille translating, formatting, and embossing from the print icon in the Windows editor. Free for Index users; download at www.indexbraille.com/downloads/index.htm.

Braille translation and transcription software

Software for braille transcription includes automated translators that convert letters, numbers, and other standard characters into contracted braille, and direct-input programs that require a knowledge of braille codes and a one-for-one input of each character to be output in braille.

Braille2000

Consists of two bodies of software: the braille-text editing tool and the printer-driver for embossing. Can read and write braille XML files, translate XML print text into braille, and send braille documents via the Internet. Compatible with ED-IT PC. Operates on Windows95, Windows98, Windows98, Windows2000, and WindowsXP.

<u>Computer Application Specialties Company</u>, monthly license subscriptions ranging from \$11 for single users to \$39 for five users; or one-time fees beginning at \$269.

Braille Board

A translator designed for production of ADA-compliant signs. Compatible with graphic layout programs such as CASmate, CorelDraw, FlexiSign, Graphix Advantage, PageMaker, and SignLab. Language support is limited to English. Includes regular braille and SimBraille (with shadow dots) fonts, scaleable. System requirements: 386, 486, Pentium or better CPU 4Mb RAM, 1Mb available hard drive space and Microsoft Windows.

Duxbury Systems, \$595

BrlProof-2000

A back-translation proofreading program for Windows; back-translates braille dots into the original print characters and also checks for missing contractions.

National Braille Association, \$5

Duxbury Braille Translators (DBT)

Each version contains such features as braille table of contents generator, capacity to produce textbook format braille, and translation tables in accordance with the Braille Authority of North America (BANA). Available for Windows or Macintosh.

Duxbury Systems, \$595-\$645

Freedom Scientific, \$595

GW Micro, \$595

MegaDots Version 2.2 on CD

Produces BANA textbook format braille. Works under all versions of Microsoft Windows, including XP. Imports eBook, Daisy/NISO, XML, HTML, and SGML files. Provides tools for creating a variety of braille constructs, including tables, footnotes, line-numbered poetry or prose, and dictionary diacritics according to BANA textbook format requirements. It is a DOS application that works with all commercially available braille embossers. Speaks with screen readers that work with MS-DOS applications, including JAWS for Windows.

Duxbury Systems, \$595

Micro Braille

Direct input software that allows user to see a full screen of braille characters.

Micro Engineering, \$155

NFBTRANS

A text-to-braille software program that operates on an MS-DOS operating system, with a brailling device, and with word-processing software. The most recent version of contracted braille translation software program is NFBTRANS 7.70. It is a self-extracting executable file available for downloading.

National Federation of the Blind, free download

PerkyDuck

Software that emulates the Perkins brailler. It allows Windows and Macintosh users to create electronic braille files on their computer through six-key input. Braille files can then be printed, embossed, or e-mailed to an instructor for examination and grading. Does not have translation capabilities and very little formatting.

Duxbury Systems, free download

Pokadot

Software for transcribing and embossing braille files. Operates under Windows and DOS.

National Braille Association, free download; disk version is \$5

TranSend

Software used with the Thomas braille embosser. Translates text into print or braille or both on the same page, line for line. Allows a user who does not know braille to produce a braille document by proofreading the accompanying print. Can provide proper braille spacing with 14-point print size.

Enabling Technologies, \$4,600

Music translation software

Goodfeel: Goodfeel Lite

Converts music files to braille, the same files used to produce the score in print. Braille reading knowledge is not a requirement to use the program. Includes integrated literary braille translation for most western languages that allows translation of both words and the tune. GOODFEEL Lite has all the features of the full product but is limited to either instrumental music, vocal parts, or keyboard.

Dancing Dots, \$795 and \$295 respectively

, \$795

Opus Braille Font Pack

Creates printed materials with braille characters. Displays and prints ASCII text files from Pokadot, MicroBraille, and MegaDots. The fonts allow preparation of print copies of braille Duxbury Systems materials, at varying point sizes and in any combination of braille and ASCII.

Opus Technologies, \$99

OpusDots Lite

For transcribers, parents, teachers, or aides who know basic print music notation but may not know braille. Uses proprietary scan and click technology for transcribing printed sheet music into music braille. The user scans the printed sheet music, then enters the musical elements by clicking over them in the scanned image. The entered music is then translated automatically into music braille. Translates single-line music for band instruments, orchestral instruments, chorus, and sight-reading or music theory exercises.

Opus Technologies, \$299

Toccata Braille Music Translator software program

Transcribes music of any complexity, including single-line instrumental music, songs with lyrics, piano music, and orchestral scores. Produced by Optek Systems of Australia and distributed in North America by Opus Technologies. Knowing the music braille code is not a requirement for using the program.

Opus Technologies, \$795

Translation Software for Braille Mathematics

DBT American Math and Science Code (Nemeth) translation

Can be included as a feature of the standard DBT software package.

Duxbury Systems, no extra cost

MegaMath Translator for MegaDots

Available as an add-on to the Megadots software package.

Duxbury Systems, \$395

V. Supplies for Writing and Embossing Braille (Full addresses are in section VI.)

Braille Writing Paper

Braille writing paper is available in a variety of sizes to accommodate an array of braille writing and embossing equipment. Sizes include 3" x 5", 3" x 6", 5" x 8" for looseleaf binders, 5" x 11" for Mini Pitch Brailler, 8 1/2 " x 11", 9" x 12", and 11" x 11". Other sizes are also available. Braille writing paper is available in heavy and light grades. Heavy grade provides more durable dots; light grade is easier to emboss by slate and stylus. Braille paper is available in buff, white, manila, or brown-glazed finish and may be ordered unpunched or punched for three, six, or nineteen holes. Paper is packaged in different quantities. (Not all sources stock all sizes.)

American Printing House for the Blind

Braille Institute of America

Howe Press of Perkins School for the Blind

Independent Living Aids

LS&S Group

Maxi-Aids

Royal National Institute for the Blind

Braille (Ohtsuki) Paper

Heavy-grade manila paper specially developed for the Ohtsuki BT-5000 embosser that can also be used on vacuum-form machines.

American Printing House for the Blind

American Thermoform Corporation

Braille Institute of America

Maxi-Aids

Brailon

A plastic-like paper developed for use with the thermoform machine. Can be used in a braillewriter or with a slate and stylus. Available in heavy and light grades and in several sizes.

American Thermoform Corporation

Computer Braille Paper

Tractor feed, available in sizes 8-1/2" x 11", 11" x 11-1/2," 14" x 11", and 6" x 6" continuous cards. Comes in heavy and light grades.

American Printing House for the Blind

American Thermoform Corporation

Braille Institute of America

Howe Press of Perkins School for the Blind

LS&S Group

Maxi-Aids

National Federation of the Blind

Royal National Institute for the Blind

Star Continuous Card Systems

Other Supplies

Binders

An assortment of notebooks and binders suitable for storing various sizes of braille paper and cards: three-ring pocket notebook, six-ring pocket notebook, and three-ring notebook for 8-1/2" x 11" and 11" x 11-1/2"; nineteen-ring looseleaf binder and nineteen-ring Krebs binders for 11" x 11-1/2" paper in three paper capacities; spiral-bound pocket notebook, plastic and cardboard covers cut to size and punched for plastic comb binding.

American Printing House for the Blind

American Thermoform Corporation

General Binding Corporation

Howe Press of Perkins School for the Blind

Independent Living Aids

LS&S Group

Maxi-Aids

Royal National Institute for the Blind

Southwest Plastic Binding Company

Impresser

An embosser for making braille business cards. A handheld device that allows one to emboss up to four lines of braille, thirteen cells each on a business card by squeezing the handle. The die for each Impresser must be custom made.

American Printing House for the Blind

Labeling Tape

Labeling materials include Dymo braille tape, Teflon-skied tape, aluminum tape, clear cassette labels, braillabels (8-1/2"x 11" adhesive-back sheets that can be cut to size), perma clear adhesive-back labels, embossables (for use with braille embossers, tractor fed, 8-1/2" x 11", adhesive back), and 2" x 5" clear plastic labels.

American Printing House for the Blind

American Thermoform Corporation

Braille Institute of America

Howe Press of Perkins School for the Blind

Independent Living Aids

Label Specialties

Lighthouse Store

LS&S Group

Maxi-Aids

3M Braille Labeler

Embosses braille on vinyl or magnetic tape. Dial includes complete braille alphabet, some contractions, and punctuation. Holds 1/2" width tape.

Braille Institute of America
Independent Living Aids

Lighthouse Store

LS&S Group

Maxi-Aids

VI. Addresses of Sources and Suppliers

Adaptive Technology Consulting, Inc.

P.O. Box 778

Amesbury, MA 01913

(978) 462-3817

(978) 462-3928 fax

gyarnall@adaptivetech.net

www.adaptivetech.net

Al Squared

P.O. Box 669

Manchester Center, VT 05255

(802) 362-3612

800-859-0270

(802) 362-1670 fax

sales@aisquared.com

www.aisquared.com

American Foundation for the Blind

11 Penn Plaza, Suite 300

New York, NY 10001

(212) 502-7600

(212) 502-7777 fax

afbinfo@afb.net

www.afb.org

American Foundation for the Blind National Literacy Center

100 Peachtree Street, Suite 620

Atlanta, GA 30303

(404) 525-2303

(404) 659-6957 fax

literacy@afb.net

www. afb. org/section. asp? section id = 50.

American Printing House for the Blind

1839 Frankfort Avenue

Louisville, KY 40206

(502) 895-2405

800-223-1839

(502) 895-1509 fax

info@aph.org

www.aph.org

American Red Cross Metropolitan Chapter

209 Fairfield Road

Fairfield, NJ 07004

(973) 797-3336

(973) 575-8548 fax

jbente@rcmetronj.org

American Thermoform Corporation

1758 Brackett Street

La Verne, CA 91750

(909) 593-6711

800-331-3676

(909) 593-8001 fax

sales@americanthermoform.com

www.atcbrleqp.com

Association for Education and Rehabilitation of the Blind and Visually Impaired

1703 North Beauregard Street

Suite 440

Alexandria, VA 22311

(703) 671-4500

877-492-2708 (703) 671-6391 fax

aer@aerbvi.org

www.aerbvi.org

Bartimaeus Group

1481 Chain Bridge Road Suite 100

Julie 100

McLean, VA 22101

(703) 442-5023 (703) 734-8381 fax

adapt2c@bartsite.com

www.bartsite.com

BAUM USA

info@baum.de

www.baum.de/index.php

Beach Cities Braille Guild P.O. Box 712

Huntington Beach, CA 92648

(714) 536-9666

Braille Authority of North America

c/o Kim Charlson, Chair

Braille and Talking Book Library

Perkins School for the Blind

175 North Beacon Street

(617) 972-7249

(617) 923-0004 fax

kim.charlson@perkins.org

www.brailleauthority.org

Braille Institute of America

741 North Vermont Avenue

Los Angeles, CA 90029

(323) 663-1111, (323) 660-3880

Carolyn's Low Vision Products

(323) 663-0867 fax

info@brailleinstitute.org

www.brailleinstitute.org

1415 57th Avenue West

Bradenton, FL 34207-3646

(941) 739-5555

800-648-2266

(941) 739-5503 fax

sales@carolynscatalog.com

www.carolynscatalog.com

Computer Application Specialties Company

P.O. Box 22219

Lincoln, NE 68542-2219

(402) 423-4782

(402) 423-5154 fax

BRL question @c-a-s.com

www.braille2000.com

Dancing Dots

1754 Quarry Lane

P.O. Box 927

Valley Forge, PA 19482-0927

(610) 783-6692

(610) 783-6732 fax

info@dancingdots.com

www. dancing dots. com

Duxbury Systems, Inc.

270 Littleton Road, Unit 6

Westford, MA 01886

(978) 692-3000

(978) 692-7912 fax

orders@duxsys.com

www.duxburysystems.com

Electronic Vision Access Solutions

39 Canal Street

P.O. Box 371

Westerly, RI 02891

(401) 596-3155

800-872-3827

(401) 596-3979 fax

contact@evas.com

www.evas.com

Enabling Technologies

1601 Northeast Braille Place

Jensen Beach, FL 34957

(772) 225-3687

800-777-3687

(772) 225-3299 fax

info@brailler.com

www.brailler.com

Exceptional Teaching Aids

20102 Woodbine Avenue

Castro Valley, CA 94546

(510) 582-4859

800-549-6999

(510) 582-5911 fax

ExTeachings@aol.com

www.exceptionalteaching.com

Freedom Scientific Blind/Low Vision Group

11800 31st Court North

St. Petersburg, FL 33716-1805

(727) 803-8000

800-444-4443

(727) 803-8001 fax

Info@freedomscientific.com

www.freedomscientific.com

Garlic Press

1312 Jeppesen Avenue

Eugene, OR 97401

(541) 345-0063

(541) 683-8767 fax

www.garlicpress.com

General Binding Corporation

One GBC Plaza

Northbrook, IL 60062

800-723-4000

www.gbcconnect.com

Grant Wood Area Education Agency

4401 Sixth Street SW

Cedar Rapids, IA 52404-4499

(319) 399-6415

(319) 399-6457 fax

info@medten.aea10.k12.ia.us

www.aea10.k12.ia.us/divlearn/

brailletoo.html

GW Micro, Inc.

725 Airport North Office Park

Fort Wayne, IN 46825

(260) 489-3671

(260) 489-2608 fax

support@gwmicro.com

www.gwmicro.com

Hadley School for the Blind

700 Elm Street

Winnetka, IL 60093

(847) 446-8111

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800-323-4238

(847) 446-9916 fax

student_services@hadley.edu

www.hadley-school.org

Howe Press

Perkins School for the Blind

175 North Beacon Street

Watertown, MA 02472

(617) 924-3490

(617) 926-2027 fax

Info@Perkins.org

www.perkins.org

Independent Living Aids, Inc.

200 Robbins Lane

Jericho, NY 11753-2341

(516) 937-1848

800-537-2118

(516) 937-3906 fax

can-do@independentliving.com

www.independentliving.com

Karen Condie

7859 South 280 East

Sandy, UT 84070

(801) 569-9061

leekarencondie@msn.com

Keyboard Alternatives

NLS/BPH: Reference Circulars; Braille Literacy (2004)
c/o The Gilman Group, L.L.C.
P.O. Box 6356

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New York, NY 10022
(212) 821-9384
(212) 821-9707 fax
For mail order:
Low Vision Products

36-20 Northern Boulevard Long Island City, NY 11101

Rutland, VT 05702-6356

(802) 775 1993

Label Specialties

(502) 261-9000

(502) 261-9001 fax

111 East 59th Street

The Lighthouse Store (retail)

(802) 773 1604 fax

info@abilityhub.com

2501 Technology Drive Louisville, KY 40299

www.abilityhub.com/keyboard/

800-453-4923

The Louis Braille Center

320 Dayton Street, Suite 125 Edmonds, WA 98020-3590 (425) 776-4042 (425) 778-2384 fax lbc@louisbraillecenter.org

www.louisbraillecenter.org

Louise Johnson

197 West 1100 South

Orem, UT 84058

sierra@fiber.net

LS&S Group

P.O. Box 673

Northbrook, IL 60065

(847) 498-9777

800-468-4789

(847) 498-1482 fax

lssgrp@aol.com

www.lssonline.net

Maxi-Aids

42 Executive Boulevard

P.O. Box 3209

Farmingdale, NY 11735

(631) 752-0521

800-522-6294

(631) 752-0689 fax

sales@maxiaids.com

www.maxiaids.com

Micro Engineering

5714 Skyloft Drive

Riverside, CA 92509-6338

(909) 685-6338

National Braille Association

Three Townline Circle

Rochester, NY 14623-2513

(585) 427-8260

800-424-5797

(585) 427-0263 fax

nbaoffice@nationalbraille.org

www.nationalbraille.org

National Braille Press

88 Saint Stephen Street

Boston, MA 02115

(617) 266-6160

800-548-7323

888-965-8965

(617) 437-0456 fax

www.nbp.org

National Federation of the Blind

1800 Johnson Street

Baltimore, MD 21230

(410) 659-9314

(410) 685-5653 fax

materials@nfb.org

www.nfb.org

National Library Service for the Blind and Physically Handicapped Library of Congress

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1291 Taylor Street NW	

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Washington, DC 20542

(202) 707-5100

braille@loc.gov

www.loc.gov/nls/bds.html

Opus Technologies

13333 Thunderhead Street San Diego, CA 92129-2329

(858) 538-9401 phone and fax

866-678-7832

opus@opustec.com

www.opustec.com

Overbrook School for the Blind

Towers Press

6333 Malvern Avenue

Philadelphia, PA 19151

(215) 877-0313

(215) 877-2709 fax

www.obs.org

Pulse Data HumanWare

North American Sales Office

175 Mason Circle

Concord, CA 94520

(925) 680-7100

800-722-3393

usa@pulsedata.com

(925) 681-4630 fax

http://www.loc.gov/nls/reference/circulars/brailleliteracy.html

www.pulsedata.com

Region IV Education Service Center

7145 West Tidwell

Houston, TX 77092-2096

(713) 744-6368

Royal National Institute for the Blind

105 Judd Street

London WC1H 9NE

ENGLAND

020 7388 1266

020 7388 2034 fax

helpline@rnib.org.uk

www.rnib.org.uk

Rudbecom Inc.

P.O. Box 67014 Lemoyne

St. Lambert, Quebec, J4R 2T8

CANADA

(514) 996-4430

(450) 671-5921 fax

info@braillegame.com

www.braillegame.com

Scalars Publishing

P.O. Box 382834

Germantown, TN 38183-2834

(901) 737-0001

(901) 737-2882 fax

info@scalarspublishing.com

www.scalarspublishing.com

The Shodor Education Foundation, Inc.

923 Broad Street, Suite100

Durham, NC 27705

(919) 286-1911

(919) 286-7876 fax

www.shodor.org

Sighted Electronics, Inc.

69 Woodland Avenue

Westwood, NJ 07675

800-666-4883

sales@sighted.com

www.sighted.com

Southwest Plastic Binding Company

109 Millwell Court

Maryland Heights, MO 63043

(314) 739-4400

800-325-3628

www.swplastic.com

Star Continuous Card Systems, Inc.

32 Bacton Hill Road

Frazer, PA 19355-1026

800-458-1413

800-637-6708 fax

sales@braillepaper.com

www.braillepaper.com

Stipes Publishing L.L.C.

204 West University Avenue

Champaign, IL 61820

(217) 356-8391

stipes@soltec.net

www.stipes.com

Tack-Tiles® Braille Systems, L.L.C.

P.O. Box 475

Plaistow, NH 03865

800-822-5845

braille@tack-tiles.com

www.tack-tiles.com

Texas School for the Blind and Visually Impaired

TSBVI Outreach

1100 West 45th Street

Austin, TX 78756

(512) 206-9103

800-872-5273

www.tsbvi.edu/Outreach/seehear

ViewPlus Technologies

1853 Southwest Airport Avenue

Corvallis, OR 97333

(541) 754-4002

(541) 738-6505 fax

info@viewplus.com

www.viewplus.com

$\label{linear} \textbf{VisuAide}, \textbf{Inc}.$

841, Jean-Paul-Vincent

Longueuil, Québec

CANADA, J4G 1R3

(450) 463-1717

888-723-7273

(450) 463-0120 fax

info@visuaide.com

www.visuaide.com

Compiled by Freddie L. Peaco Reference Section January 2004

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Posted on 2006-02-24