APH ACCESSIBLE MATERIALS FOR STUDENTS WHO ARE BLIND OR LOW VISION

Portland State University

AMERICAN PRINTING HOUSE

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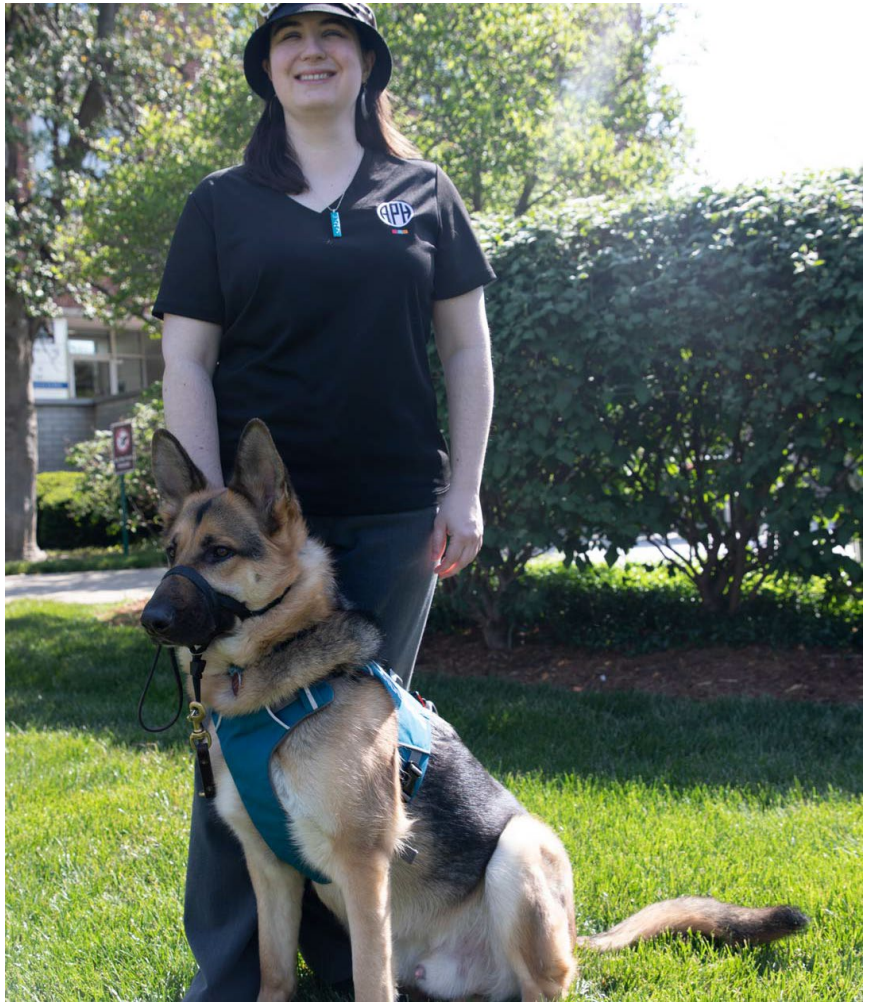
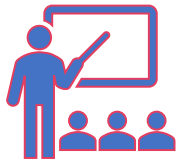
Northwest Region

American Printing House for the Blind





Objectives of Session

- Understand the Act to Promote the Education of the Blind and its importance.
- Describe a variety of tools available to modify core curriculum or address the expanded core curriculum for someone with a visual impairment.
- Differentiate the audience and usability of the Virtual ExCEL Academy, Virtual ExCEL Camp, Access Academy, and the APH Hive.

BACKGROUND

The American Printing House for the Blind

The American Printing House for the Blind is the world's largest company devoted solely to creating products and services for people who are visually impaired. APH was founded in Louisville, Kentucky in 1858, making it the oldest institution of its kind in the United States.

Mission and Vision

- ***"Empowering people who are blind or visually impaired by providing accessible and innovative products, materials and services for lifelong success."***
- **"An accessible world, with opportunity for everyone."**

Start with the Students

THE OLDEST LEGISLATION RELATING TO

VISUAL IMPAIRMENT!

The **Act to Promote the Education of the Blind** was enacted in 1879 to provide adapted educational materials to eligible students who meet the definition of blindness.

Who is Eligible?

For students to be eligible to participate in the Federal Quota Program, they MUST fulfill the following requirements:

- Meet the definition of blindness - That is, have a "central visual acuity of 20/200 or less in the better eye with correcting glasses or
- a peripheral field of vision no greater than 20 degrees or
- visual performance reduced by brain injury or dysfunction when visual function meets the definition of blindness as determined by an eye care specialist or neurologist

And

- Be enrolled in a formally organized public or private, nonprofit educational program of less than college level
- Be enrolled with the registering school or agency on the first Monday in January (adult students must have received 20 hours of instruction per week for a total of 12 weeks in the previous calendar year)

How Does it Work?

- Congress appropriates funds each October.
- The allotment is then divided by the total number of registered eligible students.
- The multiplied registration of the per child amount is credited to each account establishing the “quota” for the federal fiscal year.
- Quota monies are then allocated to accounts administered by Ex Officio Trustees.
- Quota monies can only be used by APH for the payment of labor and materials plus reasonable administrative overhead.

Who are the Ex Officio Trustees?

- Designated individuals for each residential school, state department of education, and agency for the blind that participates in the Federal Quota program.
- Each Ex Officio is entrusted with the administration of the Federal Quota Program within his or her system.

Outreach Services Goal

The goal of the Outreach Services department is to promote the education of the blind by increasing awareness about the many products and services offered by APH. This includes but are not limited to the following: distance learning and statewide/nationwide training opportunities; exhibits and presentations at regional, statewide and national conferences; expanded core curriculum academies/professional learning communities; and parent and family training opportunities.

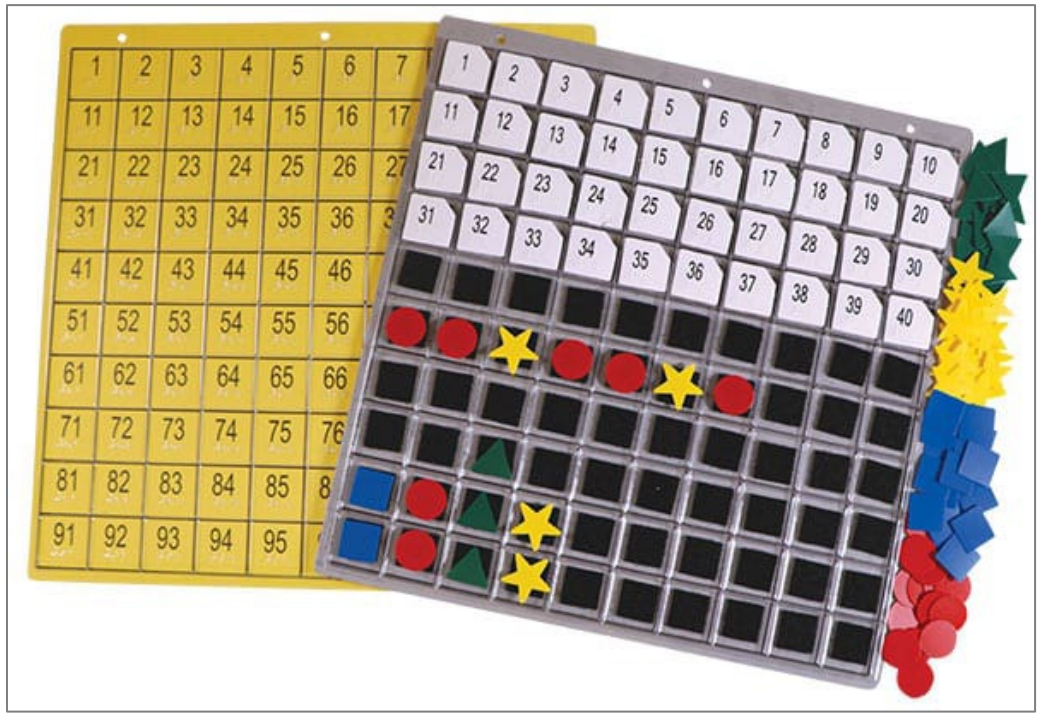
APH Resources

- National Prison Braille Network
- Museum
  - Migel Library
  - Hall of Fame
- InSights Art Contest
- Accessibility Hub
- NIMAC
- Louis Database
- Tactile Graphics Image Library

COMMON CORE

Math and Science

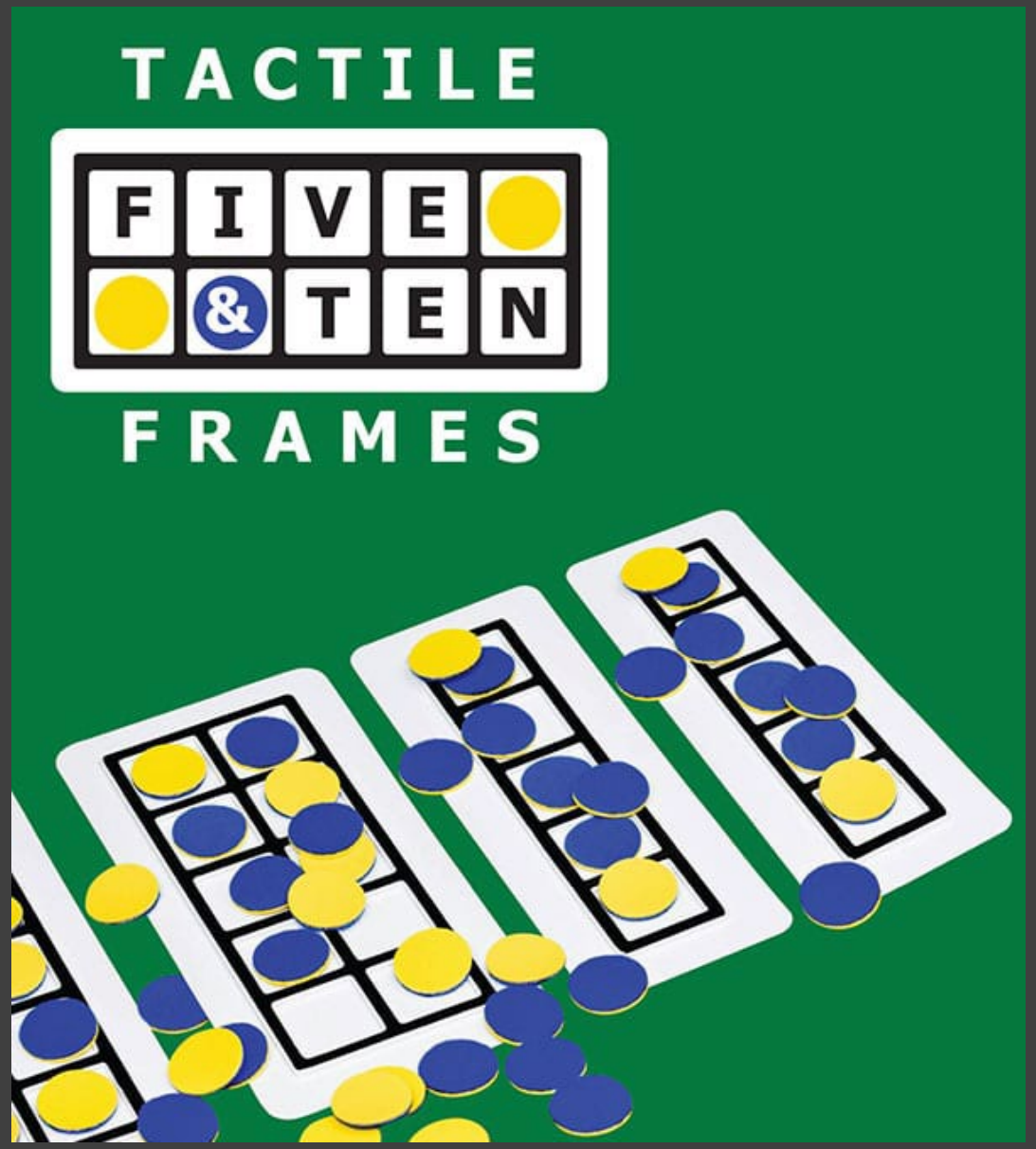
Hundreds Board and Manipulatives



- Use these large print protractors for classroom and assessment — include built-in wands for exploring angles.

Tactile Five & Ten Frames

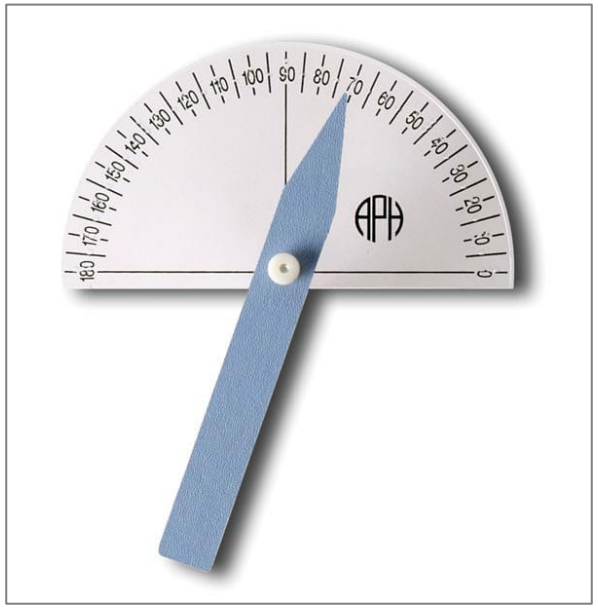
Learning and understanding that numbers are composed of tens and ones is an important foundational mathematical concept.

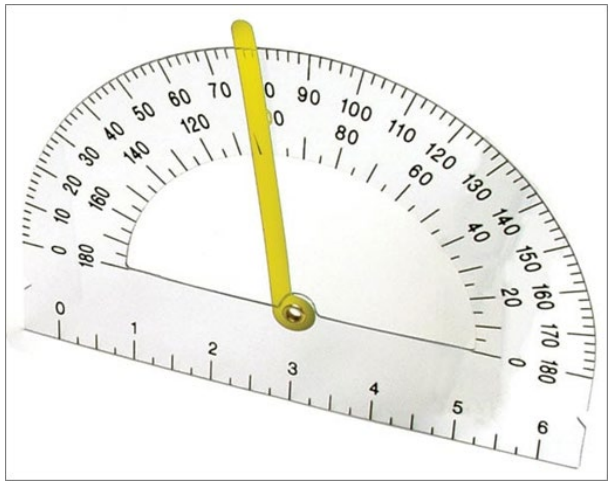


TactileDoodle Kit

- Use TactileDoodle and quickly generate tactile, raised-line graphics to convey a variety of concepts or art within the classroom or at home.

Braille-Large Print Protractors





- This is a braille-large print protractor with pivoting wand that allows for tactile exploration of angles.
- Large Print only

Geometro Sets

Geometro materials provide hands-on experiences with manipulatives that aid in teaching 3-D geometry.

Large: 1-03024-00

Medium: 1-03023-00

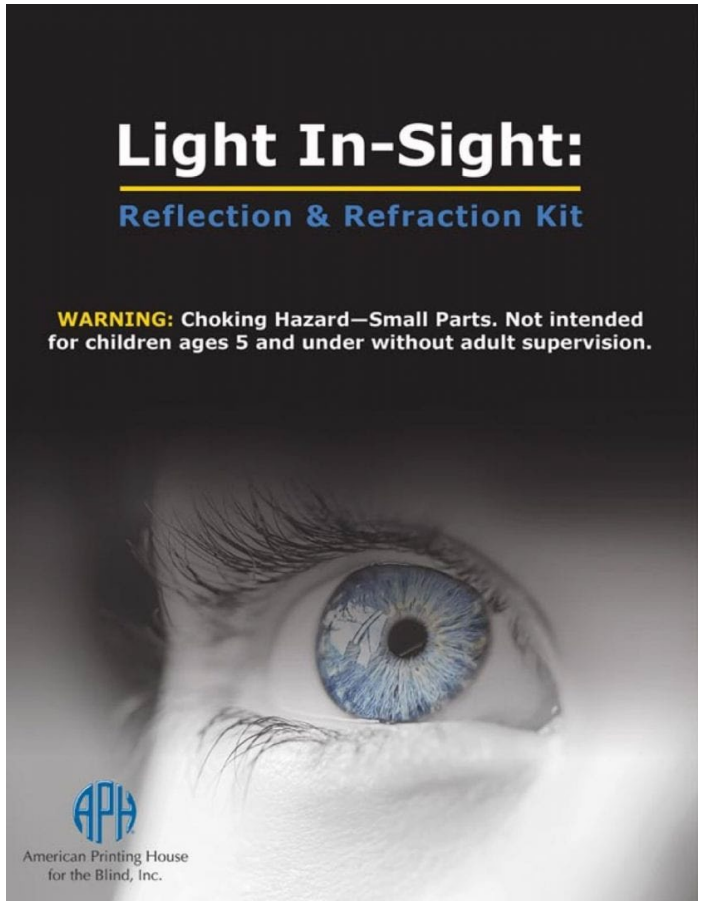
Mini: 1-03022-00

Cylinder and Cone:1-03030-00

Tactile Algebra Tiles

- Tactile Algebra Tiles are colorful, magnetic tiles that can be manipulated on a steel board to assist students in solving math problems.

Light In-Sight Reflection & Refraction Kit



- Learn about reflection and refraction by using the tools in this handy kit.

Adapted Science Materials Kit

- Enables students with visual impairments to participate in science lessons and experiments alongside their sighted peers.

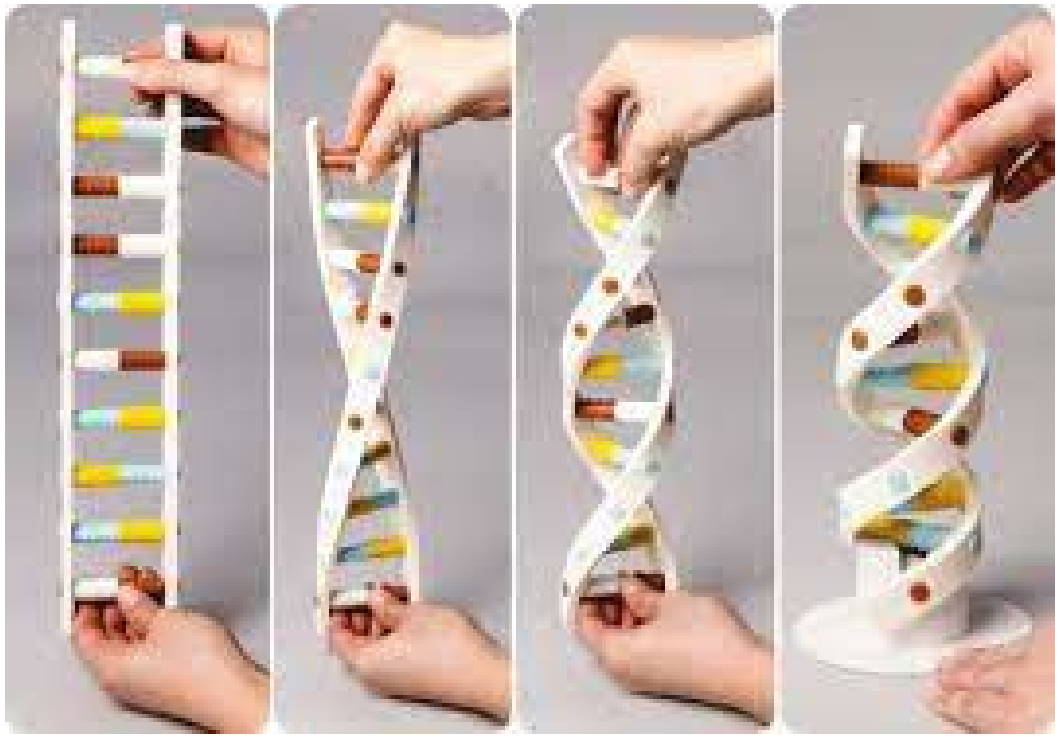
Azer's Interactive Periodic Table Study Set (NEMETH)

- Designed to make the Periodic Table of the Elements accessible to students with visual impairments and blindness.

Build-A-Cell

- Build and discover the different characteristics of bacterial, animal, and plant cells with Build-A-Cell.

DNA Twist

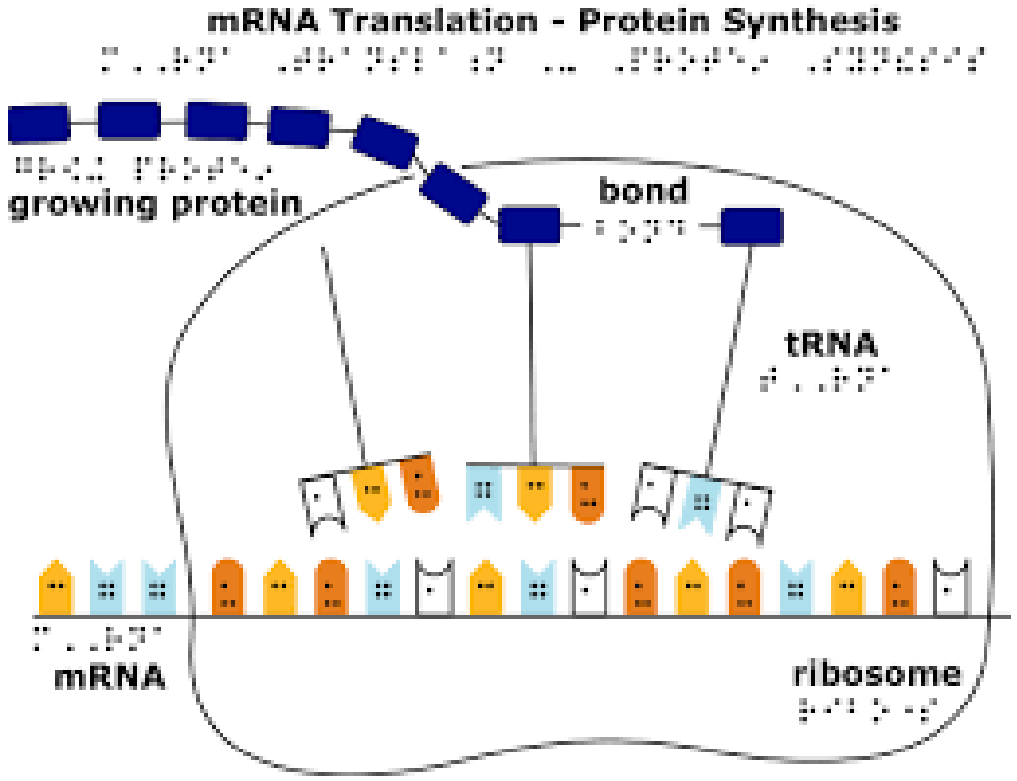


- Learn about the structure of the DNA molecule with this accessible DNA model.

DNA-RNA Kit

- Learn about the formation of single and double strands of DNA, DNA replication, and transcription of DNA to messenger RNA with this accessible kit.

Protein Synthesis Kit



- Decode messenger RNA with the genetic code and create transfer RNA molecules that bring amino acids in the correct order to form a protein.

TECHNOLOGY AND CODING

The Mantis Q40

- 40 cell braille display
- QWERTY laptop keyboard
- Stand-alone features
- Connects via USB or Bluetooth

Chameleon 20

- Speech – coming soon
- 20 cell braille display
- Perkins style 8 key keyboard
- Stand-alone features
- Connects USB or Bluetooth

Comparing: Mantis vs Chameleon

Mantis reinforces letter to letter recognition

- Learning to touch type
- For some, keyboard layout is more familiar
- Works with Chromebooks

Chameleon is smaller so more portable

- Speech output (coming soon)
- Braille entry for Braille Math Editor with JAWS
- Braille keyboard for braille character reinforcement

Code Jumper

- Code Jumper™ assists students in learning computer coding and programming skills through a unique, physical system.
- Originally designed by Microsoft ® and developed by APH, this fun and engaging product is designed to teach students how to write computer code. Code Jumper technology takes block coding off the screen and puts it on the table in front of you, making it accessible to all students.

Snap Circuits Jr., RC Snap Rover Snapino, BRIC Structures

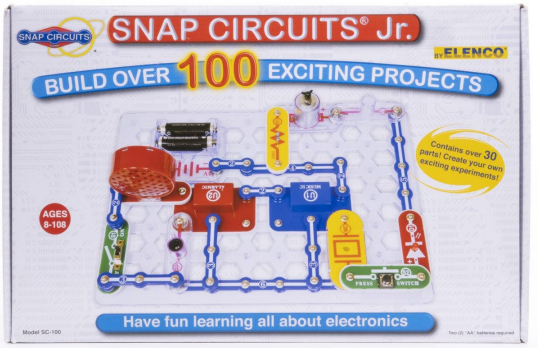
- Snap Circuits Jr. Access Kit

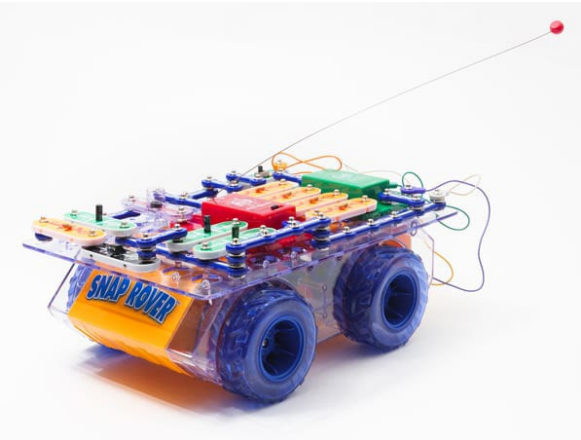
  Learn about circuits, current, resistance, switches, motors, and other basic electronics concepts.

  Combine kits and assemble into projects that illuminate, make sounds, and more.

  Providing parts labeled in braille,

  Written project instructions in braille and large print.





Code and Go Mouse

- Build on the basic coding concepts
- Tactile maps and a robot mouse
- Program the mouse to go through the maze and find the cheese
- Great for young students
- Work on O&M skills
- Cause and Effect
- Sequences

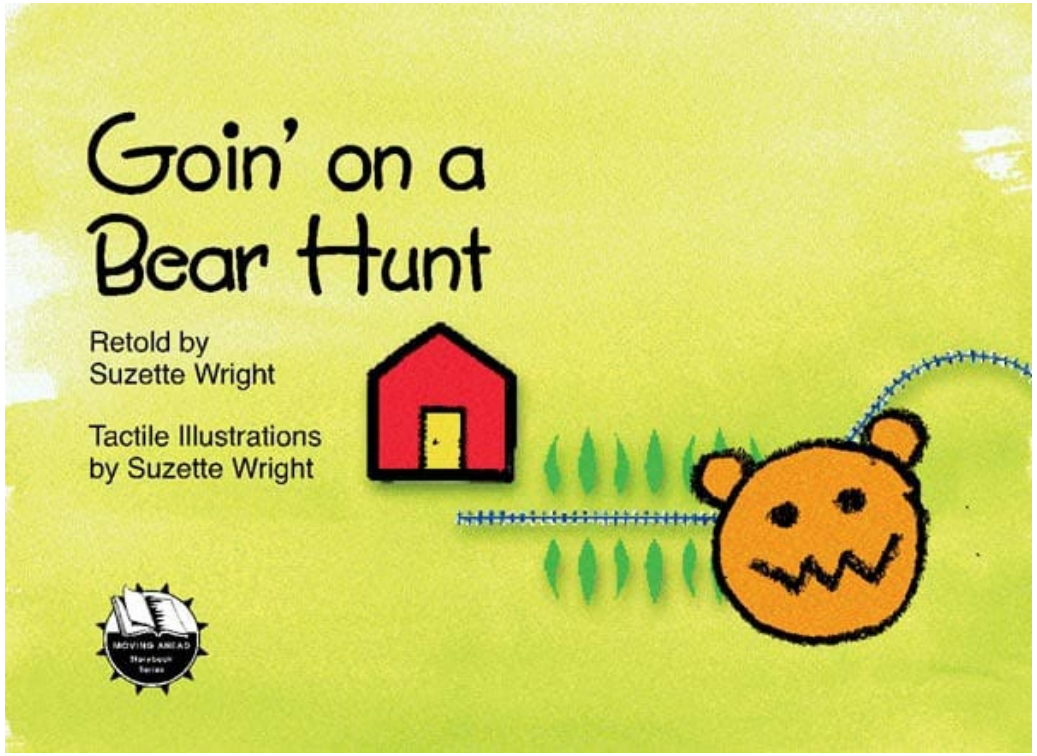
OTHER BRAILLE PRODUCTS

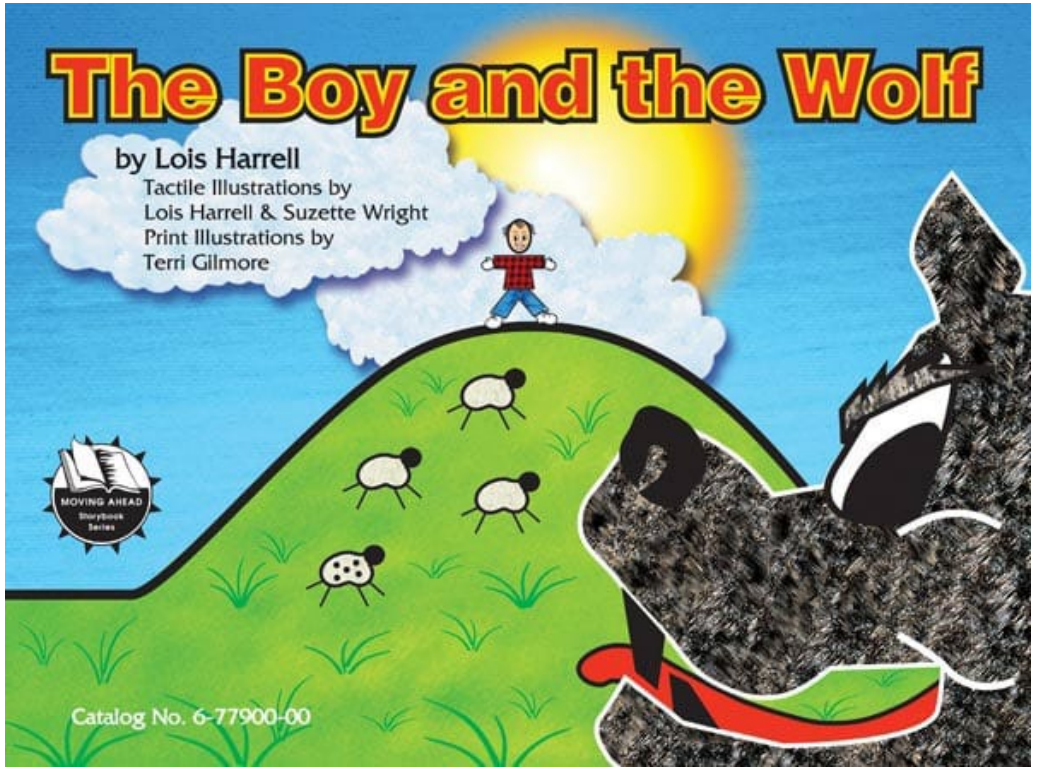
BOP

Full Braille Learning Curriculum
Pre-K
Kindergarten
First Grade
Second Grade

- Language Development
- Sound Discrimination
- Tactual Discrimination
- Hands-on Concept Development

Moving Ahead Books





PageBlaster

Tractor-fed design

Produces double-sided interpoint braille.

Emboss PRN files from APH's Tactile Graphics Image Library or

Create your own using the included Firebird tactile graphics software.

Available on Quota Funds

PixBlaster

Easily produces double-sided interpoint braille with smooth, rounded dots industry-leading,

High-quality tactile graphics with seven variable dot heights

Connect to Wi-Fi to translate and emboss documents on the fly from your computer or mobile device using the included PIXie box.

Available on Quota Funds

BrailleBlaster Transcription Software

- Free
- Translate braille in UEB or EBAE
- Style, Print, and Braille Views
- Both Windows® and Mac®

LEGO Braille Bricks

- Learn through play
- Lessons online
- Letters and Numbers
- Braille and Print

Braille Buzz

Free app you can use with any braille display

Phonics Mode: fun sound and letter associations are made.

Keyboard Mode: all key combinations are announced with dot numbers.

Letters Mode: dot number announcement reinforces the relationship between reading letters and writing on the keyboard.

All Aboard the Sight Word Activity Express

- Instruction and Assessment recognition of high frequency words
- Contracted/uncontracted braille/print on magnets
- Categorized according to grade level: pre-primer, primer, first, second, and third.
- Book of activities such as sorting

Quick Picks

Independent practice or challenge a friend

Multi choice questions

Make a choice with the wooden tool

If correct cards comes out of case

No battery or screens needed

Brl contractions, Addition, Subtraction, Multiplication, and Division

LOW VISION AND

Video Magnifiers

Juno

Students and adults with low vision

Capture and process multiple pages of printed text using Optical Character Recognition (OCR).

7-inch LCD screen with 2x-30x magnification

24 high-contrast color modes,

read aloud with text-to-speech (TTS).

Jupiter

- Jupiter Portable Magnifier

  13 in high-definition screen

  Very easy to use tactile buttons and dials

  Classroom, workplace, or at home

  Folds down 8.6 lbs.

  Distance view

  Multiple color/contrast

  Freeze image and zoom in more

Matt Connect

- The MATT (Magnifier and Tablet Together) Connect
- Compact all-in-one magnifier, distance viewer, and educational Android tablet.
- The MATT Connect features three interfaces to enhance user-ability for learners of all skills and ages: Basic, Standard, and Advanced
- Read books as downloads or under the magnifier
- Desmos Calculator

EARLY CHILDHOOD AND COMPLEX LEARNERS

Hop-A-Dot Mat

- Social interaction skills
- Self-expression
- Creativity
- Physical activity
- Body awareness
- Tactile discrimination
- Spatial concepts

Reach and Match Learning Kit

The Sensory Learning Kit

Symbols and Meaning

Tactile Connections Kit

LED Mini-Lite Box

I-M-ABLE

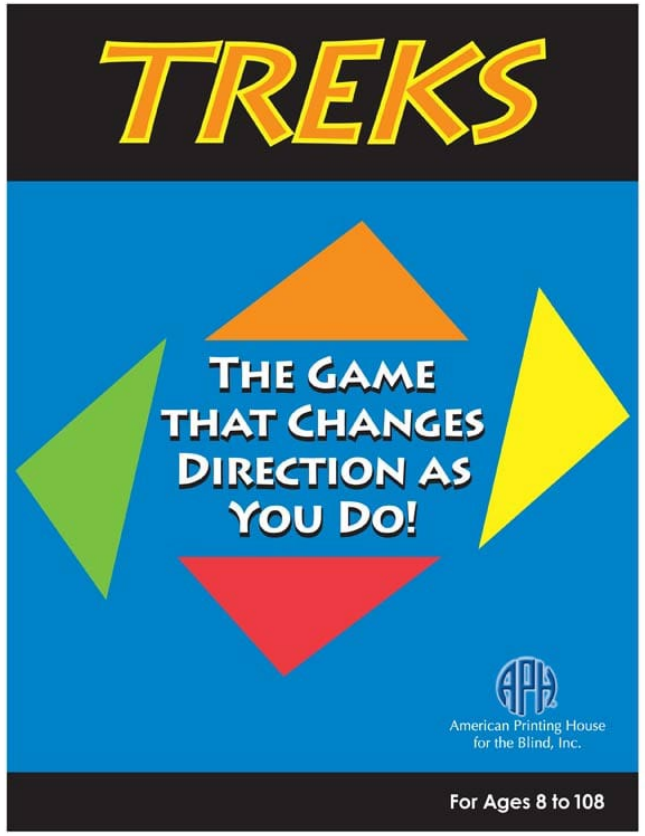
- Individualized Meaning-centered Approach to Braille Literacy
  - I-M-ABLE book, written by Dr. Diane P. Wormsley (2016)
  - I-M-ABLE teacher workshop training videos (link to videos provided in Teacher Instruction Booklet) and handouts
  - APH Word PlayHouse Kit - assists with development of phonics skills as detailed in the I-M-ABLE book
  - Four nonslip, desktop APH Sorting Trays for playing games with word cards

O&M AND TACTILE GRAPHICS

Picture Maker: Wheatley Tactile Diagramming Kit

Tactile Town: 3-D O&M Kit

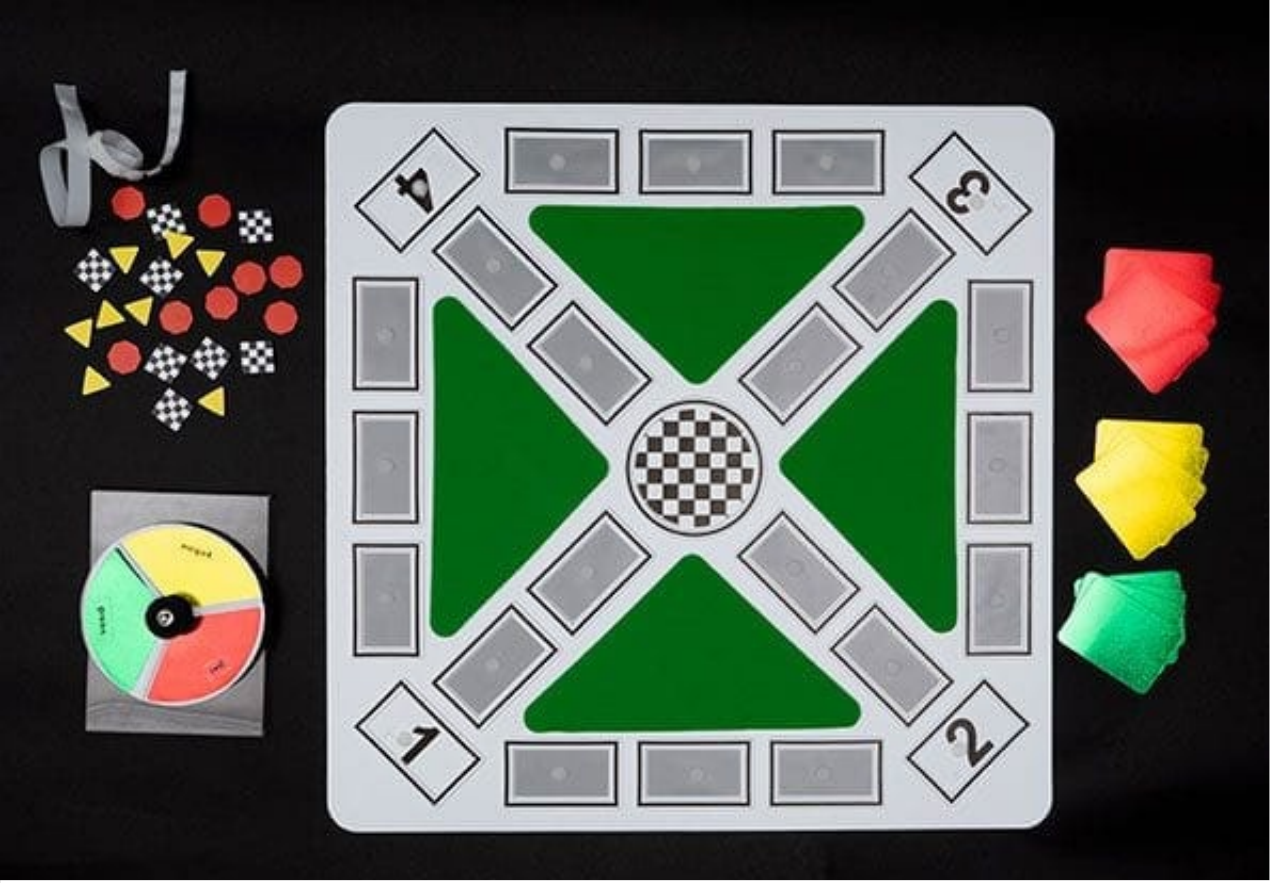
Treks



Practice compos directions

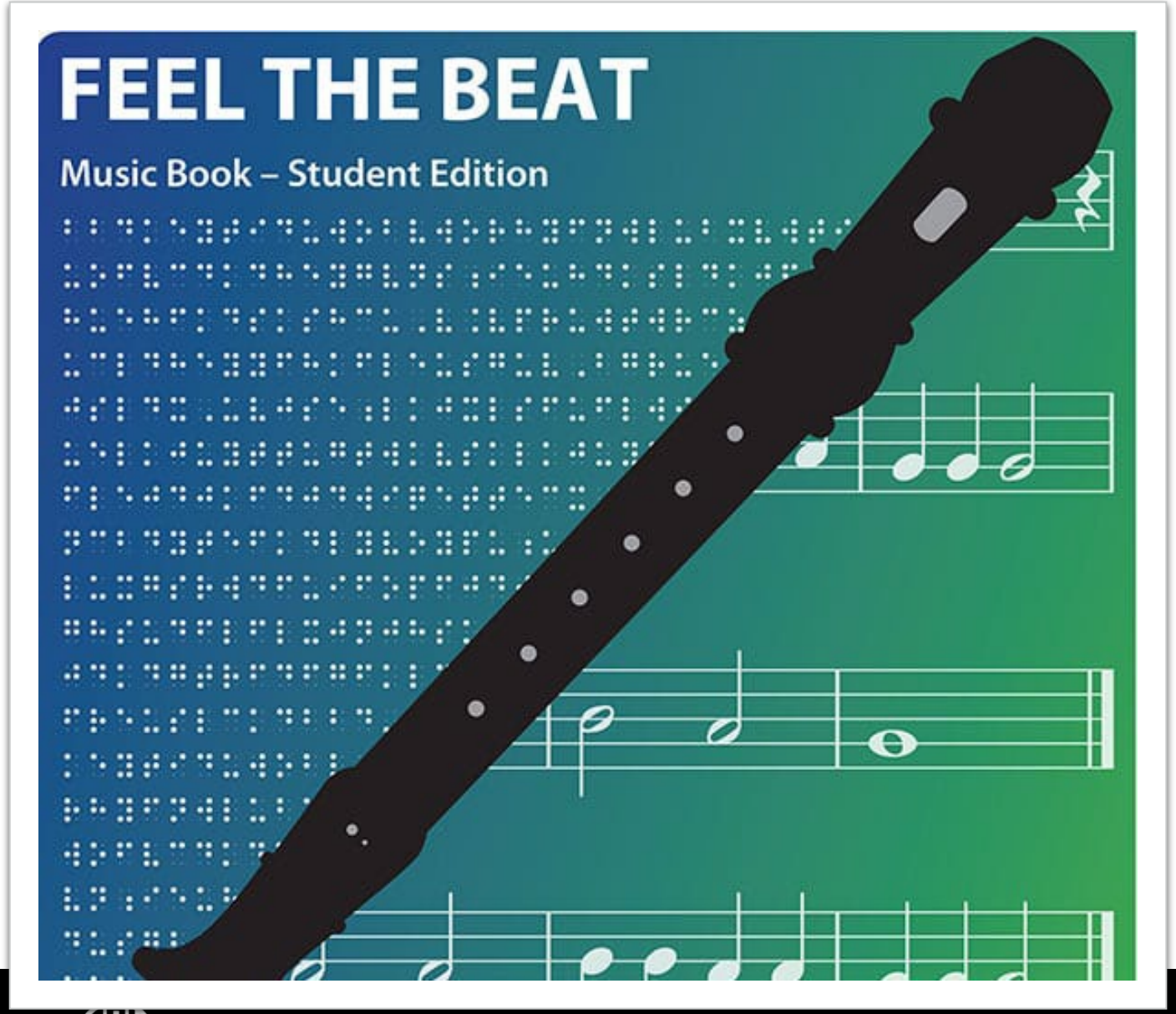
Route Planning

Make it more or less complicated



Color Raceway Kit

MUSIC, ART, GAMES AND TACTILE GRAPHICS



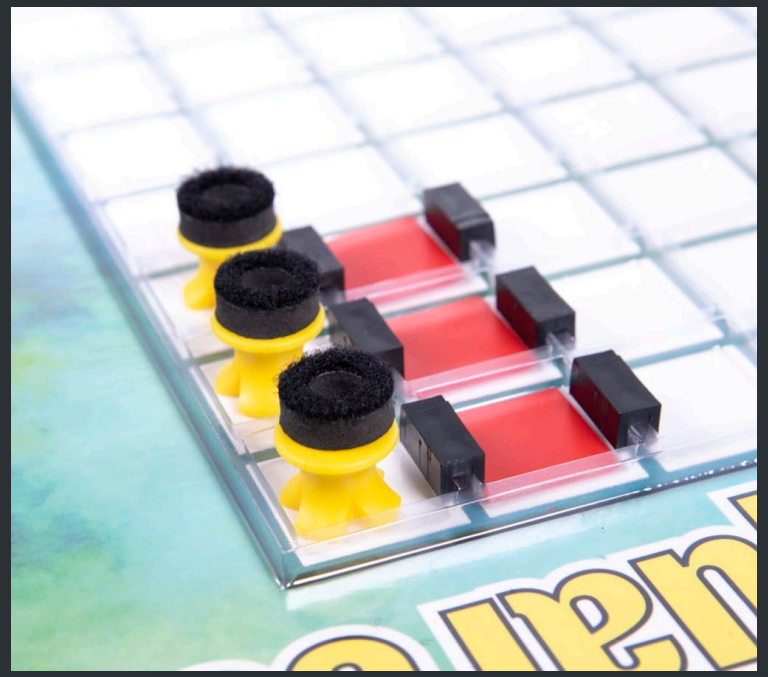
Feel the Beat

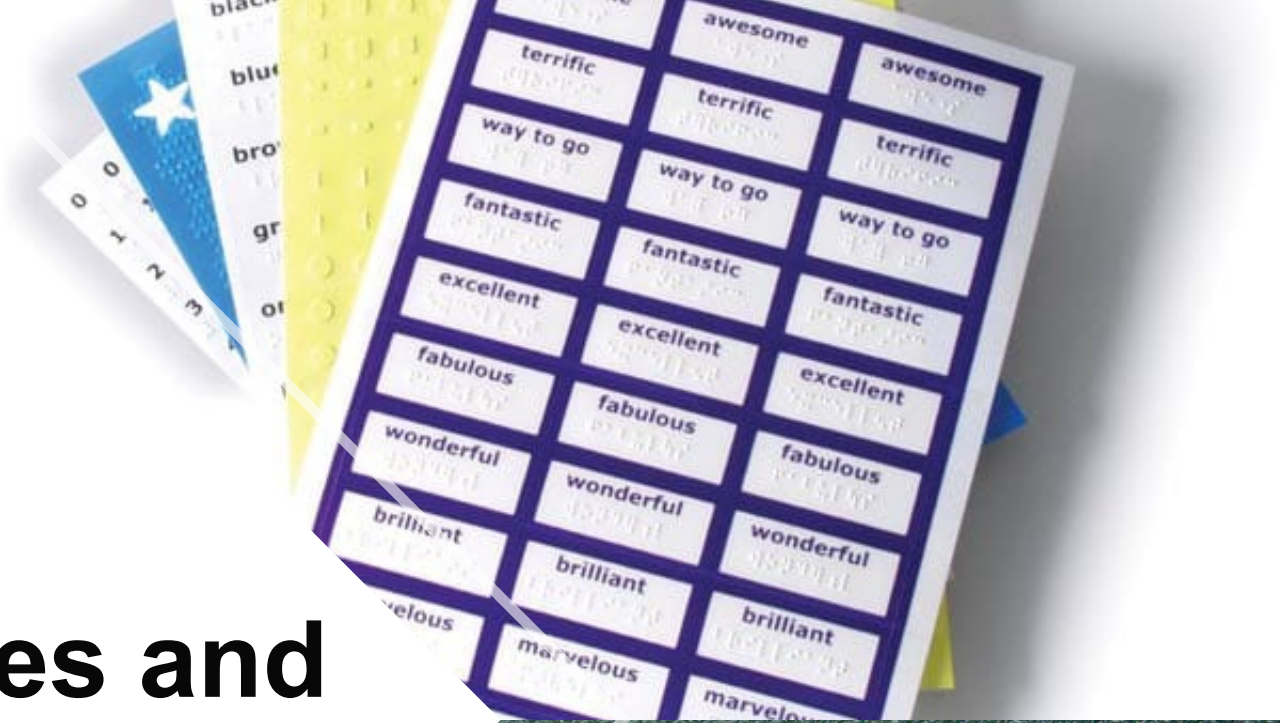
- The lessons in this curriculum teach Music Braille Code, and focus on reading, playing, and memorizing measures using a soprano recorder.
- Catalog Number: 5-41100-00

Color, Paint and Draw

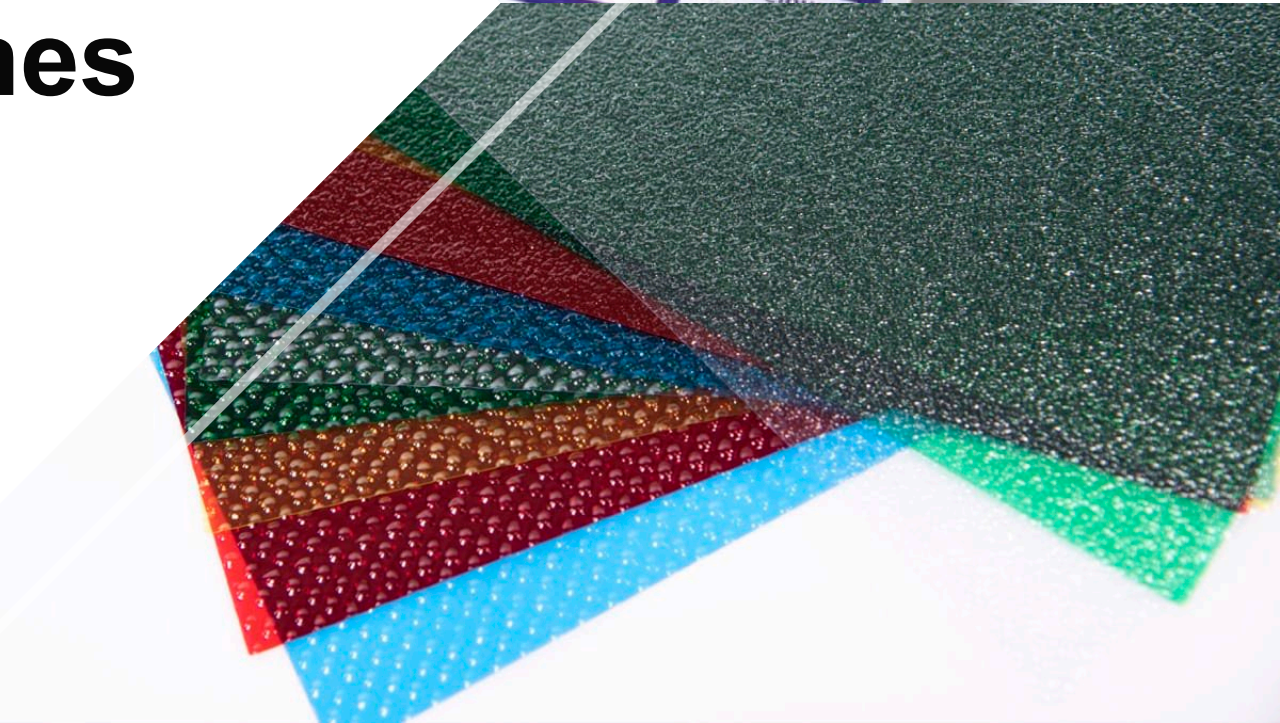
Games of Squares

- Tic-Tac-Toe
- Trading Places
- Square It
- ZigZag
- Checkers
- Lucky Roll
- Corner Chase

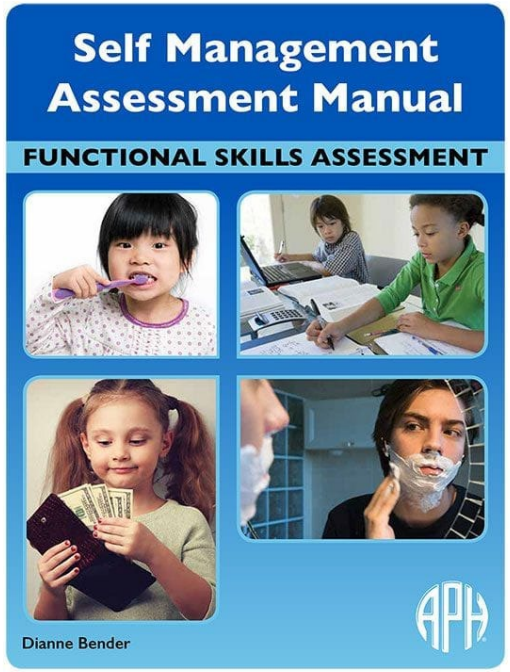


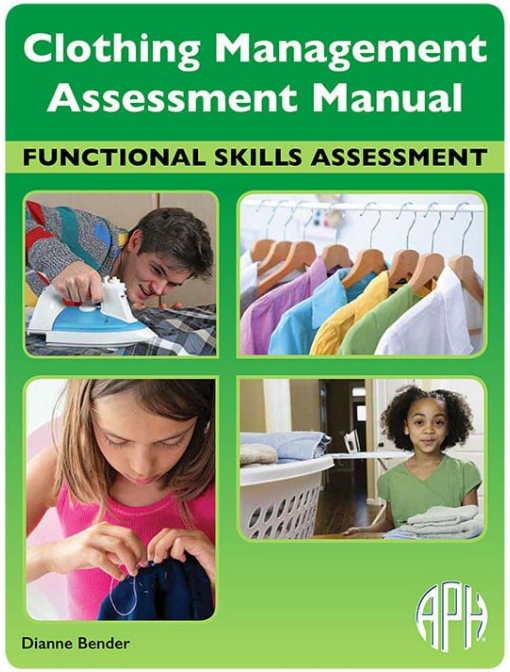


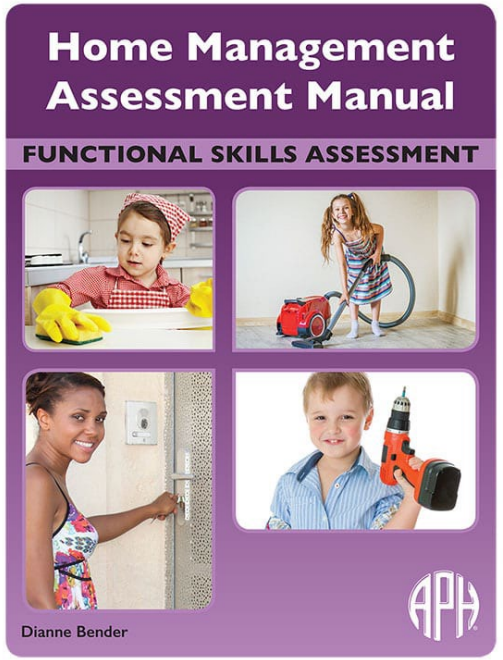
Textures and Lines

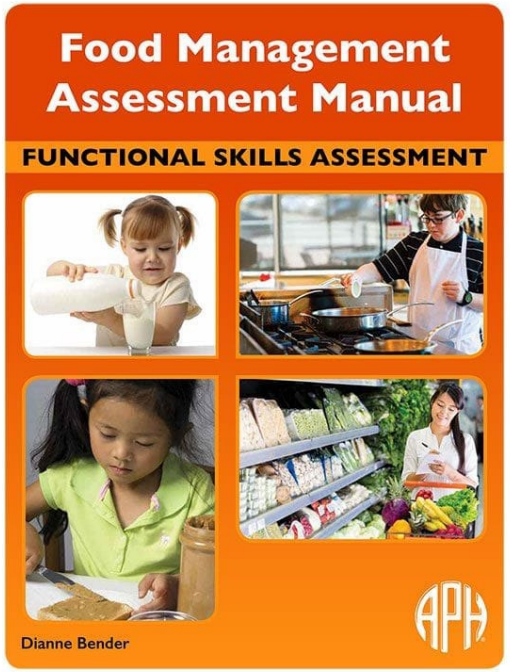


ASSESSMENTS



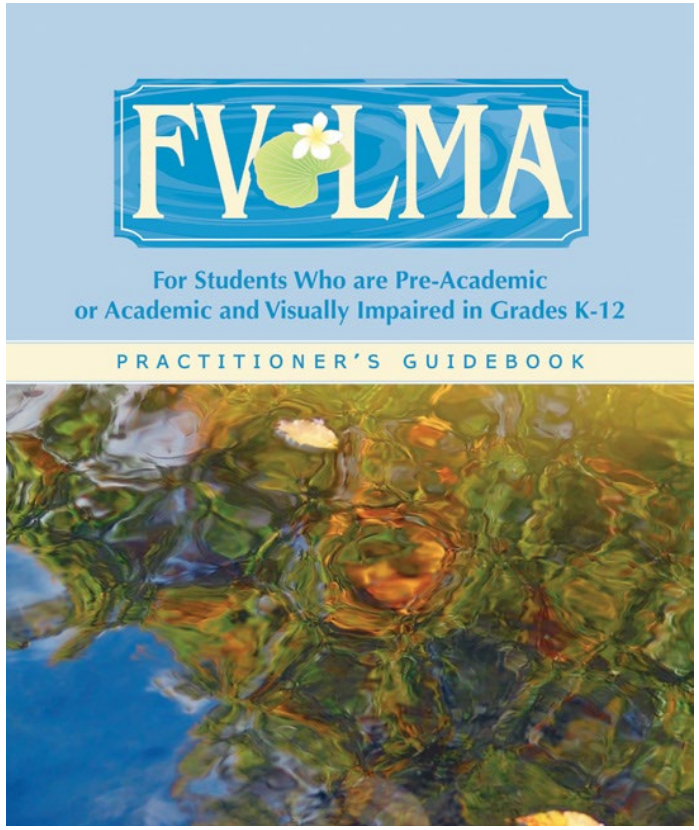






Functional Skills Assessments

FVLMA Practitioner's Guidebook



NewT Assessment Kit

AMERICAN PRINTING HOUSE

Barraga Visual Efficiency Program

VIRTUAL OFFERINGS

Virtual ExCEL Academy, Virtual ExCEL Camp, Access Academy, APH Hive

Virtual
ExCEL Academy

FREE Engaging Lessons

- Tuesday: Focus from Birth to 6th grade
- Wednesday: Focus from 7th to 12th grade
- Thursday: Focus on students with multiple impairments

AMERICAN PRINTING HOUSE

Live and Recorded

- Attend live lesson together for supplemental instruction
  - 2 pm Eastern
  - Monday through Friday of their week
- Assign video for independent homework
- Provide to parent/caregiver for activities at home
  - 5 extension activities emailed

Access Academy

For the Professionals

- Your one-stop resource for the meaningful education and training webinars you need to get the most out of APH products and services
- Live and recorded

AMERICAN PRINTING HOUSE

Access Academy

Information for Classroom, Home and Workplace

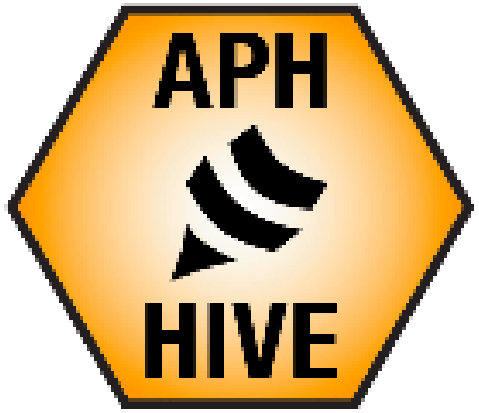
- Tutorials on new products
- Hacks on how to get the most from your beloved technology
- Information on resources, services, and programs
- ACVREP credit for live events

AMERICAN PRINTING HOUSE

Learning Management System

The Benefits

- One-stop shop for professional development
- FREE
- ACVREP credit
- Resources
- Self-paced learning



One of a Kind

- Offers both FREE access and ACVREP credit
- Bite-size instructional video modules
- Activities that bridge learning with professional application
- Peer reviewed content

Course Catalog

- Foundations
- Assessment
- Early Childhood
- Core Curriculum
- Expanded Core Curriculum

THANK YOU

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