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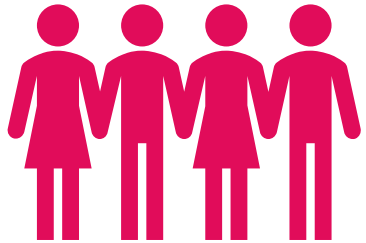
Teaching Touch and Exploratory Skills to Prepare for Tactile Graphics Learning

Presented by Jennifer Brooks and Jeff Schwartz

Zoom Poll Questions



Who is with us today?

Where are you from?

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Using the Hive's Discussion Board as a PLC

- Existing User: Sign in at www.aphhive.org
  - Forgot password? Follow reset link.
- Go to Discussion Board link in the chat

- New User: Register at www.aphhive.org
  - Create username & password
- Go to Discussion Board link in the chat

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HIVE Discussion Board Activity

Think about one of your tactile learners, what new ideas do you have for evaluating and strategically teaching touch skills and exploration of tactile graphics?

11/14/23

3:00–4:00 PM (ET)

Teaching Touch and Exploratory Skills to Prepare for Tactile Graphics Learning

ACVREP Credits

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Jennifer Brooks
Jeff Schwartz

APH Director of Regional Training & Outreach

Jeff is a graduate of Michigan State University. In his 30 years in the field, he has worked as a TVI, COMS, and VI & AT Program Specialist. Additional experiences include:

- College Advisor for Disability Services
- Teacher & Interpreter of ASL
- Deafblind Program Specialist
- APH Regional Specialist

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APH Outreach Specialist

Jennifer's career extends over 18 years serving as a TVI, COMS, and CVRT as well as other roles:

- Director of Programs.
- Program Development in the country of Romania.
- Statewide trainings and events.

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Learning Objectives

- Participants will explain how to teach touch and exploratory skills to developing tactile learners.
- Participants will examine the connections between the development of exploratory skills as foundational elements of braille readiness and meaningful tactile graphics experiences.
- Given background information on teaching touch and foundational tactile graphics skills, participants will apply knowledge by encouraging students to participate in graphics creation and composition.

Tactile Literacy Defined

- Ability to access information and learn through touch.
- Exploring and interpreting tactile pictures.
- Read, interpret, and produce tactile graphics or raised line drawings.
- Efficiently and accurately locate and use information to complete tasks.

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10/24/2023

3:00–4:30 PM (ET)

Building an Early Tactile Foundation for Graphics Understanding

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Leanne Grillot
Alicia Wolfe

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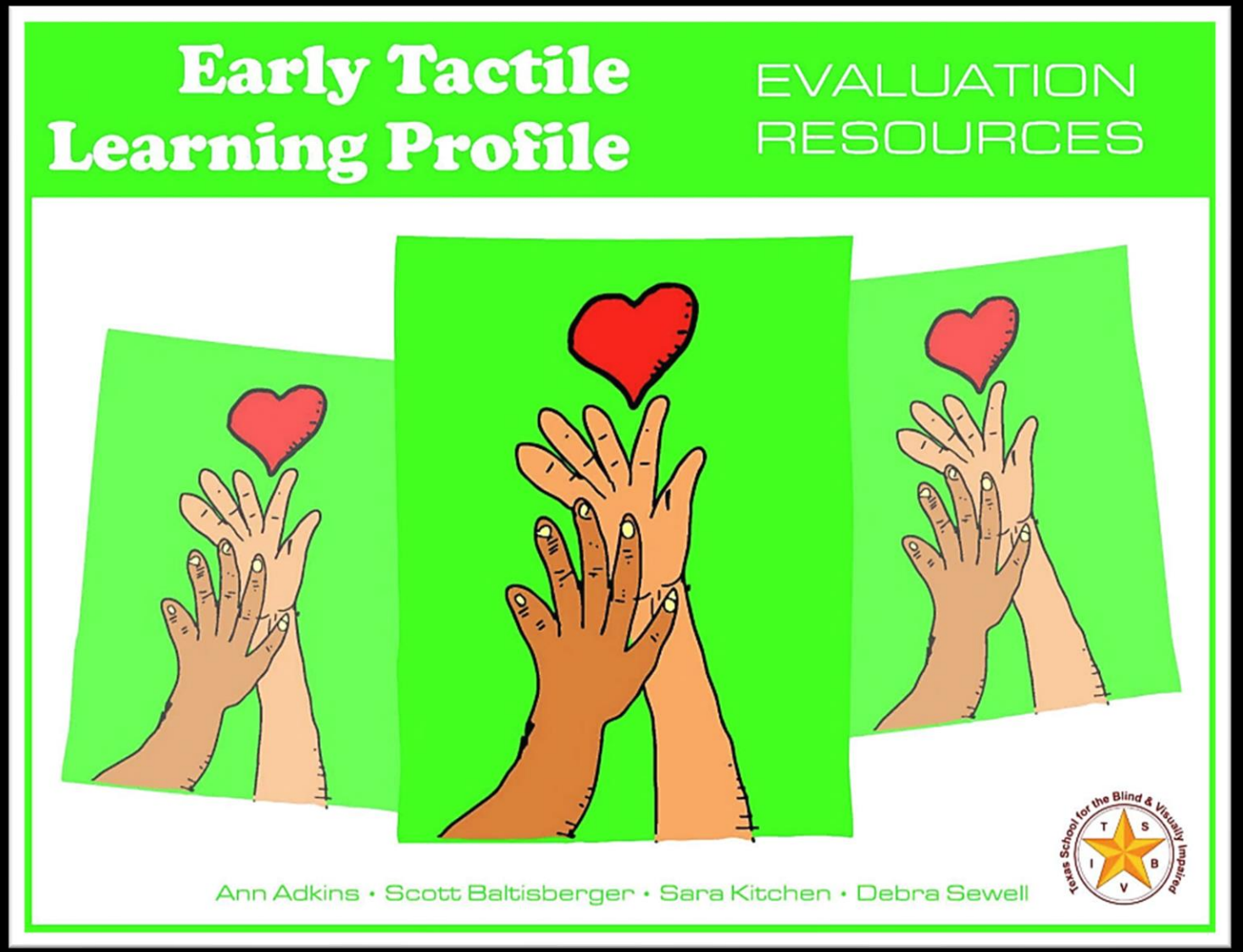
American Printing House

Teaching Touch & Exploration

Where do we begin?



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Exposure

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Strategies

- Textures
- Temperature
- Vibration
- Shapes
- Structures

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Experience

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Instructional Strategies

- Daily Life Activities
- Real Objects
- Everyday Items
- Outdoors!

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Exploration

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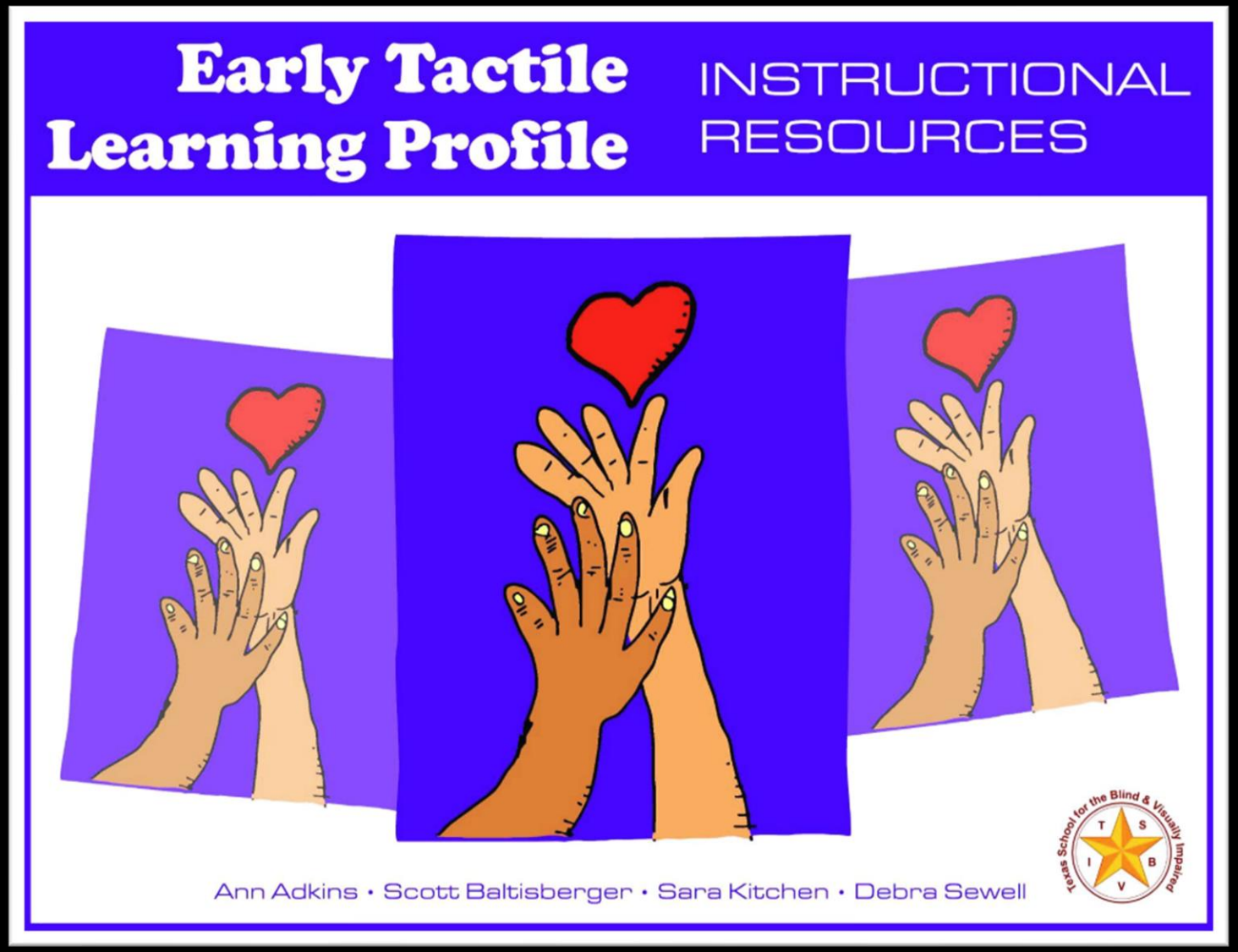
Teaching Strategies



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Literacy and Graphics Literacy

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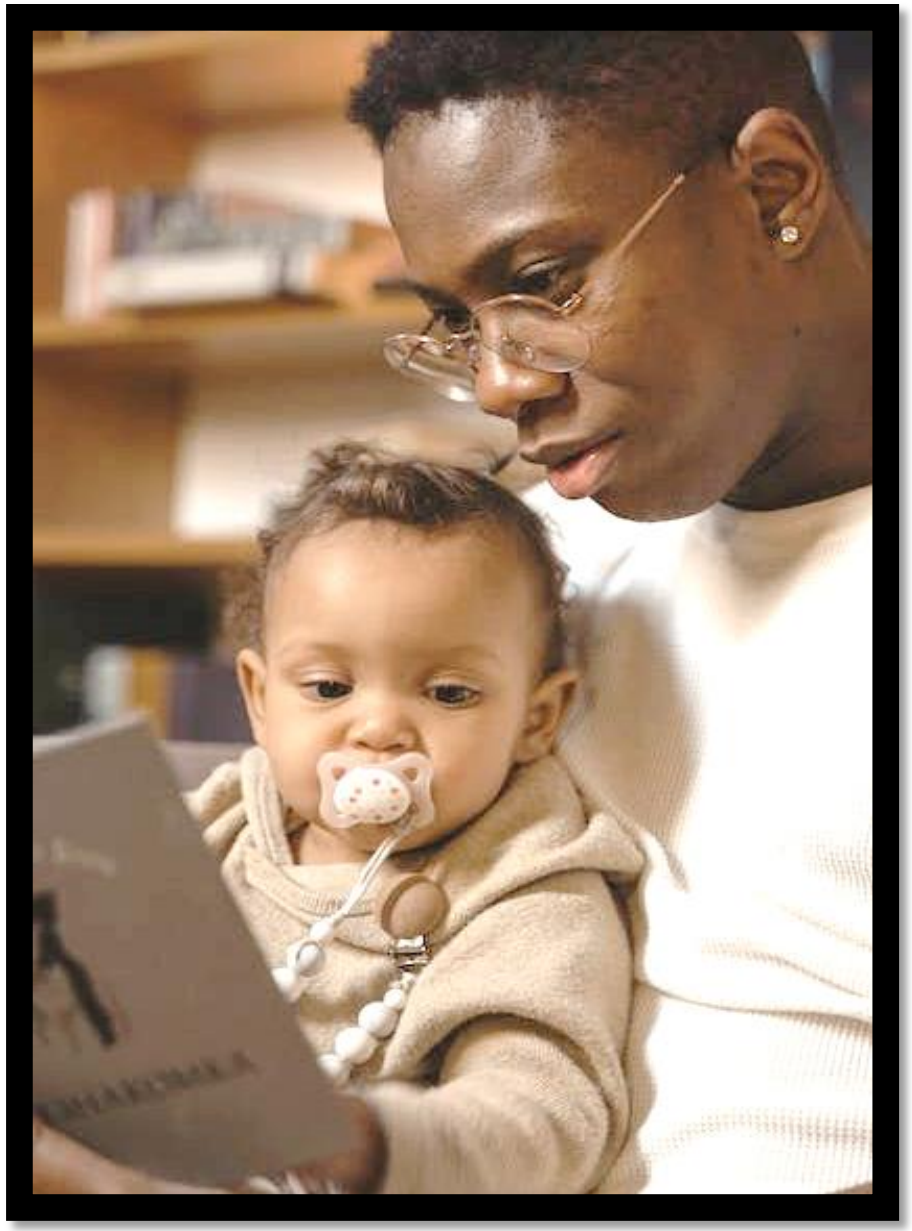
Books

- Reaching out
- Orient to the top left of the page
- Using both hands
- Isolating fingers
- Symbol recognition



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First Graphics

"It has been found that tactile graphics assist a child to retain information and the more active the searching of the tactual information, the greater the understanding of the text." (Curtin, 2019)

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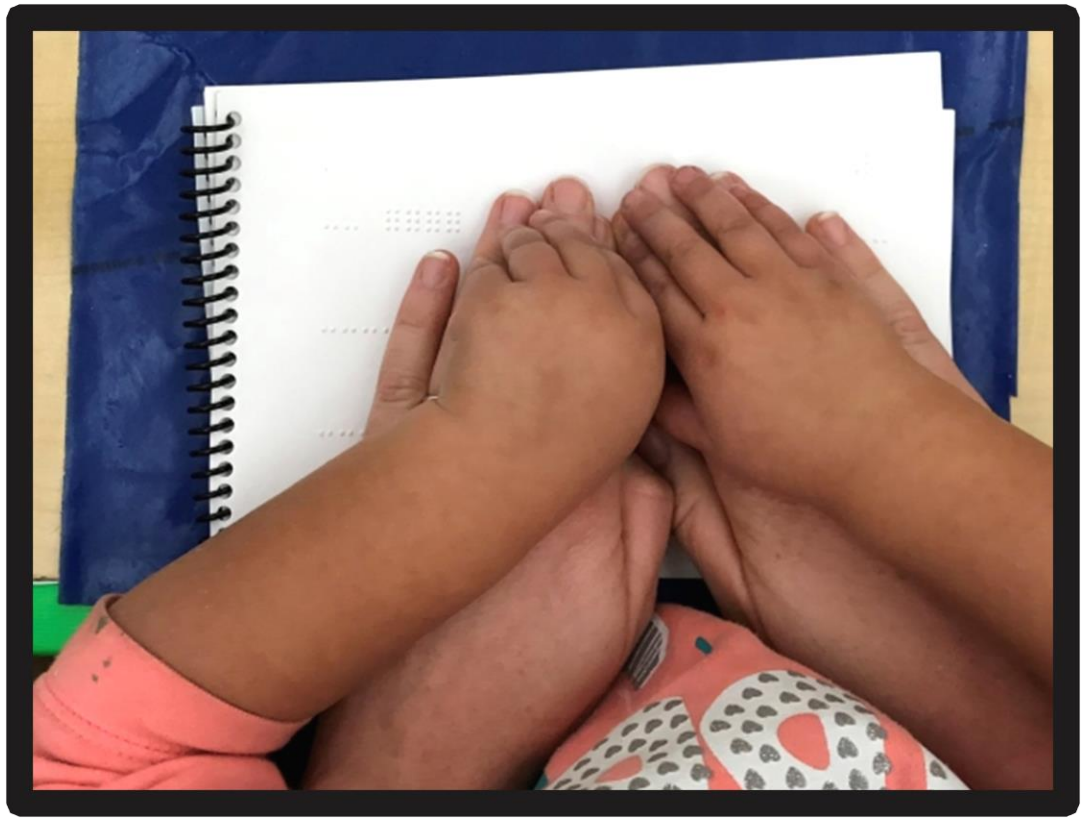
Expanding Tactual Development

- Using both hands
- Using individual fingers
- Attention to Details
- Search strategies



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Job of the Fingers

- The Index finger is the "leader finger."
- The middle and ring fingers of the right hand are the "detective fingers."
- The pinky finger of the right hand detects the end of the line.
- The middle and index fingers on the left hand are the "reference fingers“.

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Salient Features

- **Surface**
  - Rough, smooth, bumpy
- **Shape**
  - Square, circle, triangle, 3-D manipulatives or solids
- **Size**
  - Big/little, narrow/wide, long/short, tall/short, light/heavy, near/far, thin/thick

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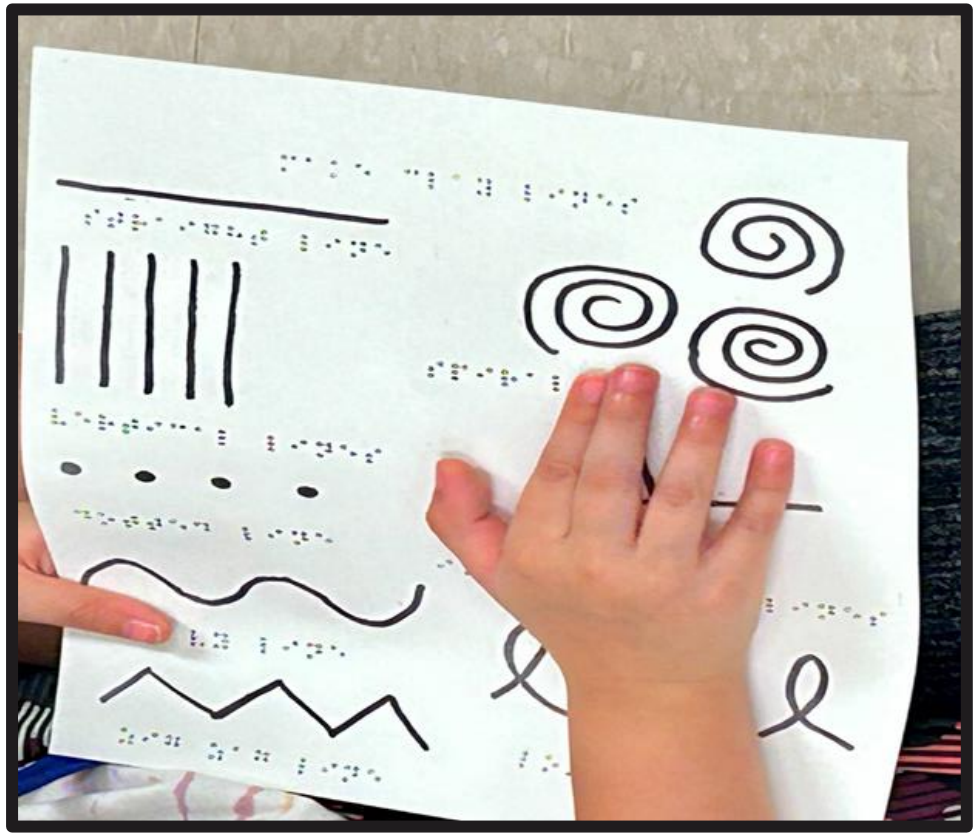
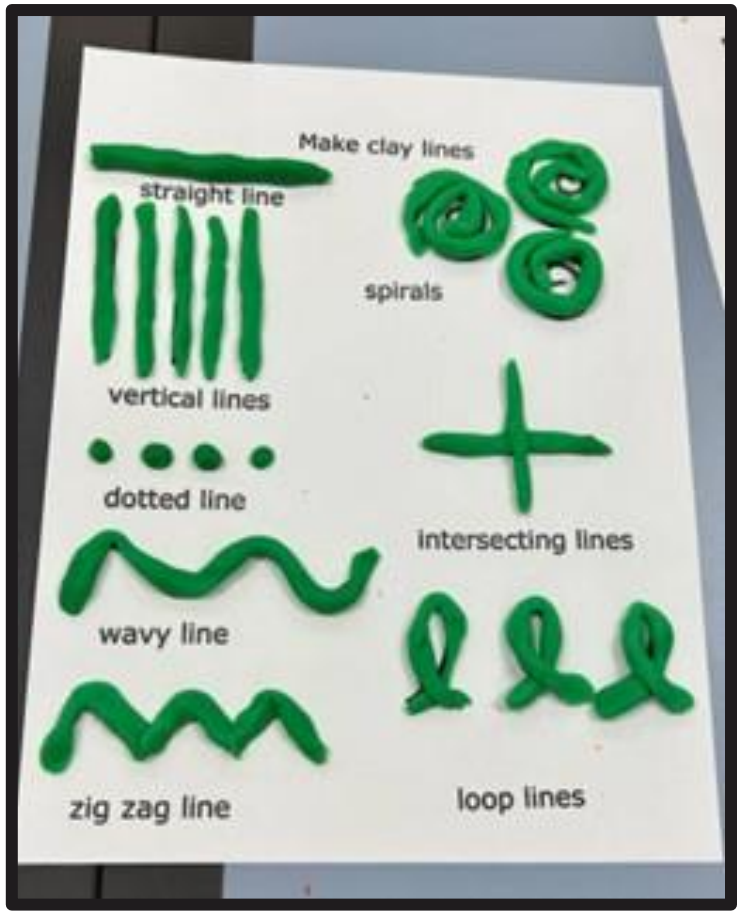
Graphic Representations





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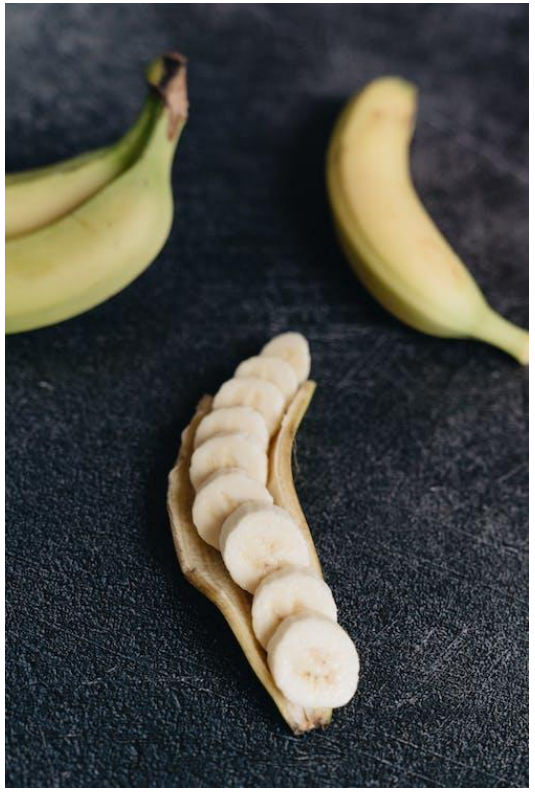
Representation and Concepts



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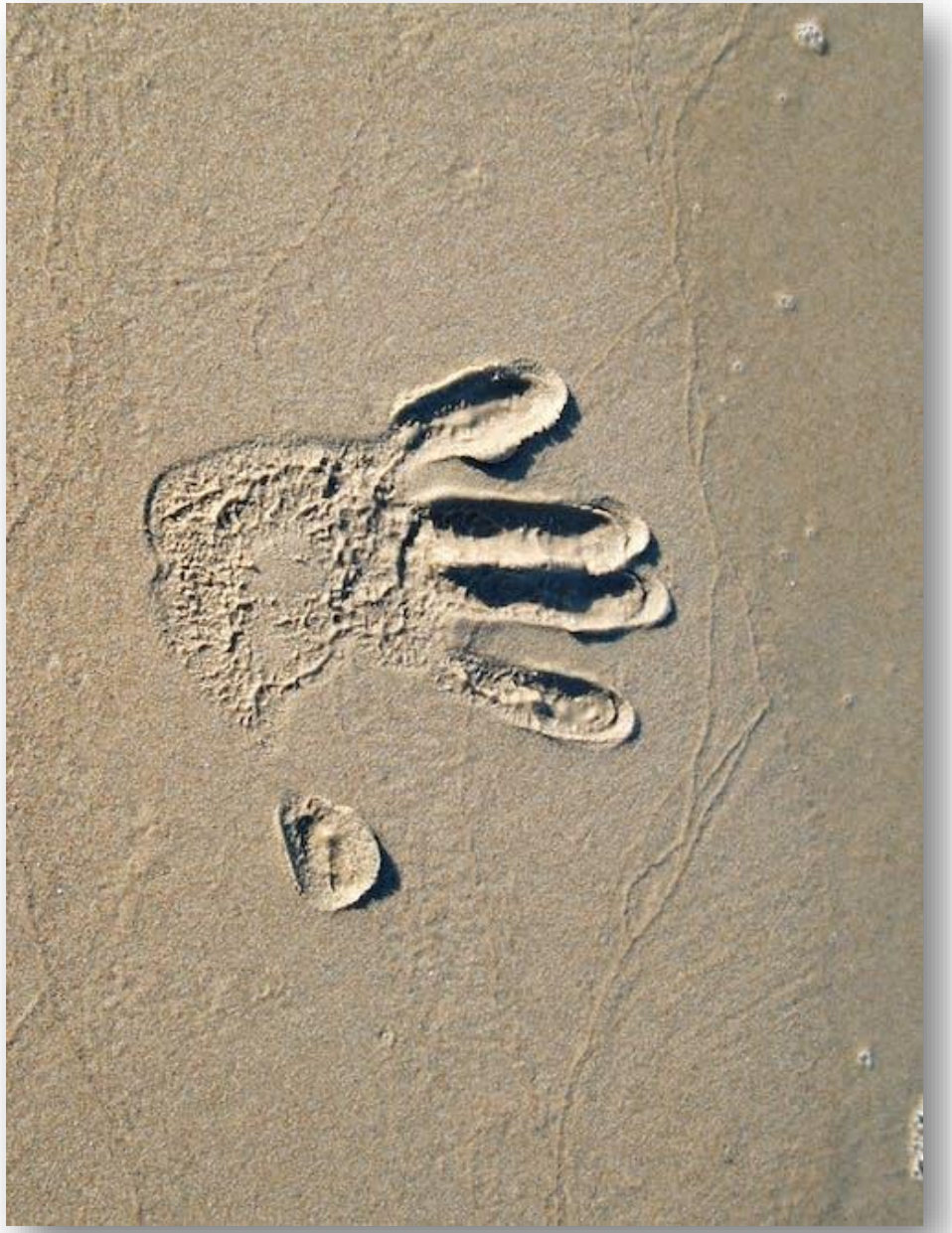
From 3D to 2D

- Make imprints
  - On sand, in clay, with playdough
  - Comb, ball, shoe, pinecone, seashell, fork, spoon
- Outline Real Objects
  - Trace hand, foot, cup, spoon
  - Find objects and see what shape their outline makes!



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Considerations for Teaching

- Wake up the hands!
- Sit behind the learner
- Bring attention to the purpose, not only the action
- Overview of graphic before details of the graphic

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Considerations for Caregivers

- Encourage your child to actively reach and explore.
- Read aloud to your child; explore tactile books.
- Match experiences with descriptive words.
- Share in reading and writing and drawing activities.
- Fun, playful, hands-on experiences!

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11/28/23

3:00–4:30 PM (ET)

Strategies and Resources for the Instruction and Evaluation of Tactile Graphicacy Skills

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Jenny Wheeler
Karen Poppe

Creating Effective Graphics

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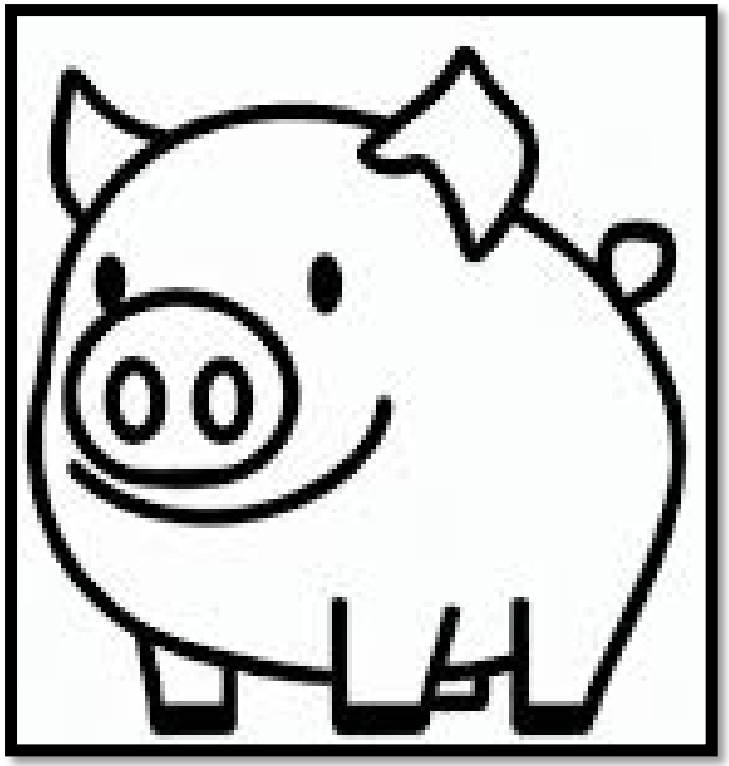
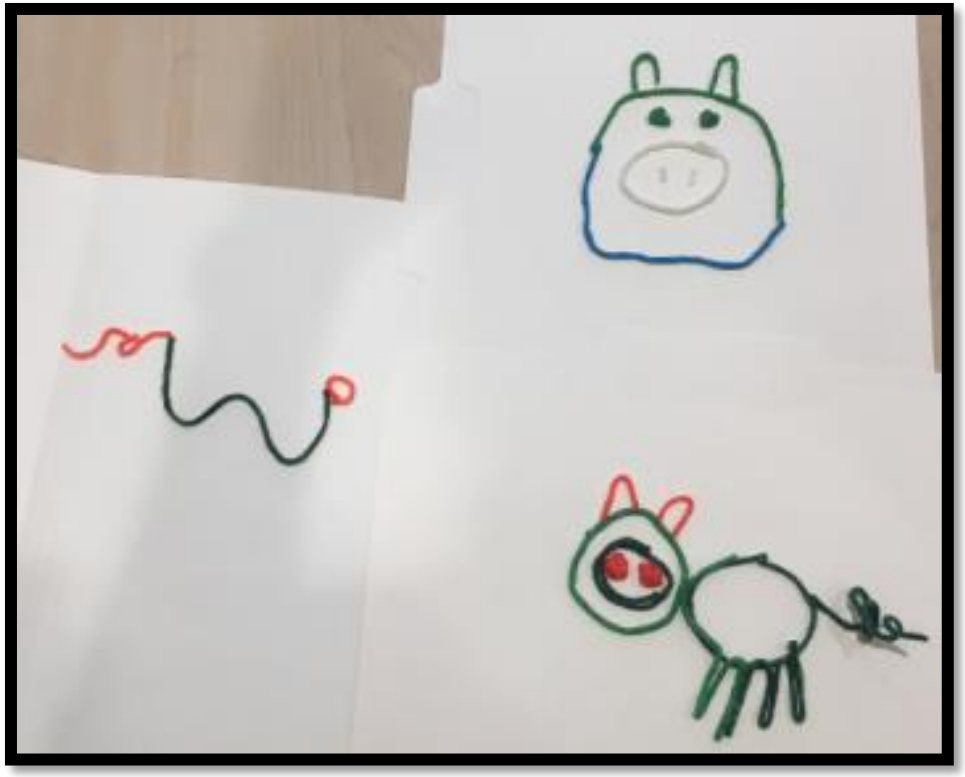
Learner's Viewpoint

Visual



Tactual



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Considerations for Creating Graphics

Tactile images provide information through touch.

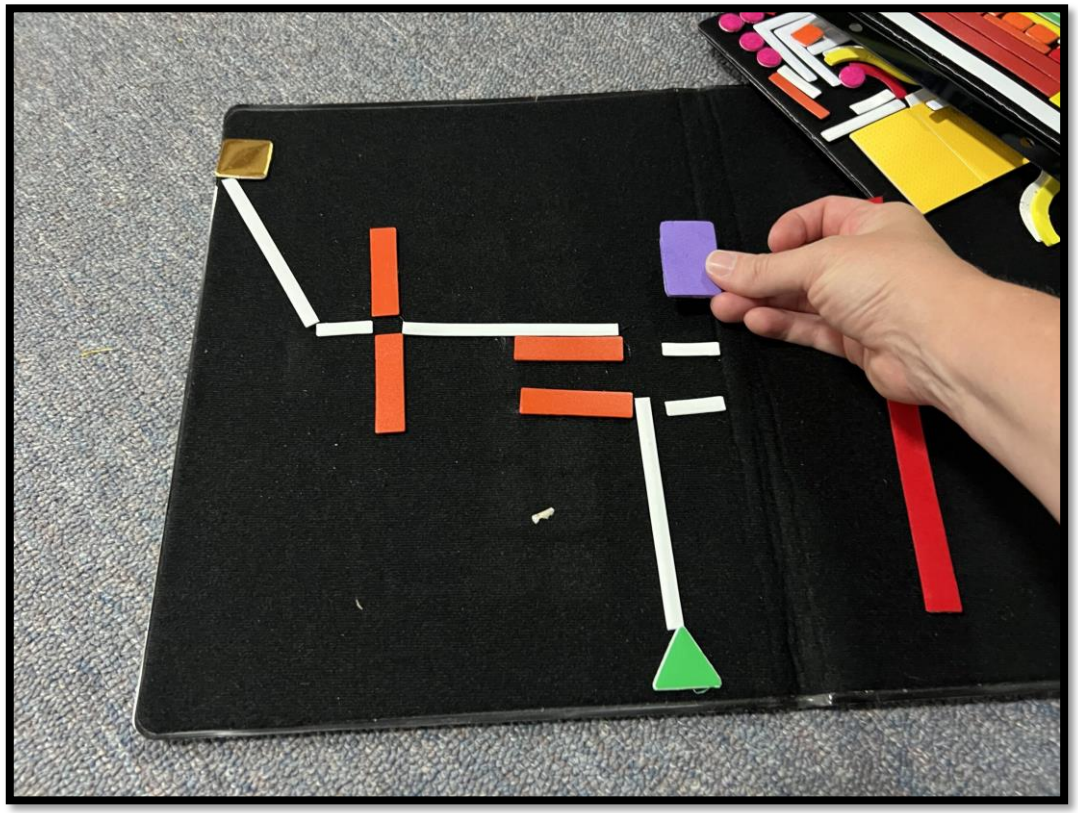
- Not a replica of a visual image.

Ensure graphic creation is clear:

- Background tactually different than foreground.
- Space between objects and lines.
- Declutter and simplify.

Creating Tactile Graphics

- Add a meaningful title and text.
- A brief description is helpful.
- Consistency in labels and locations.



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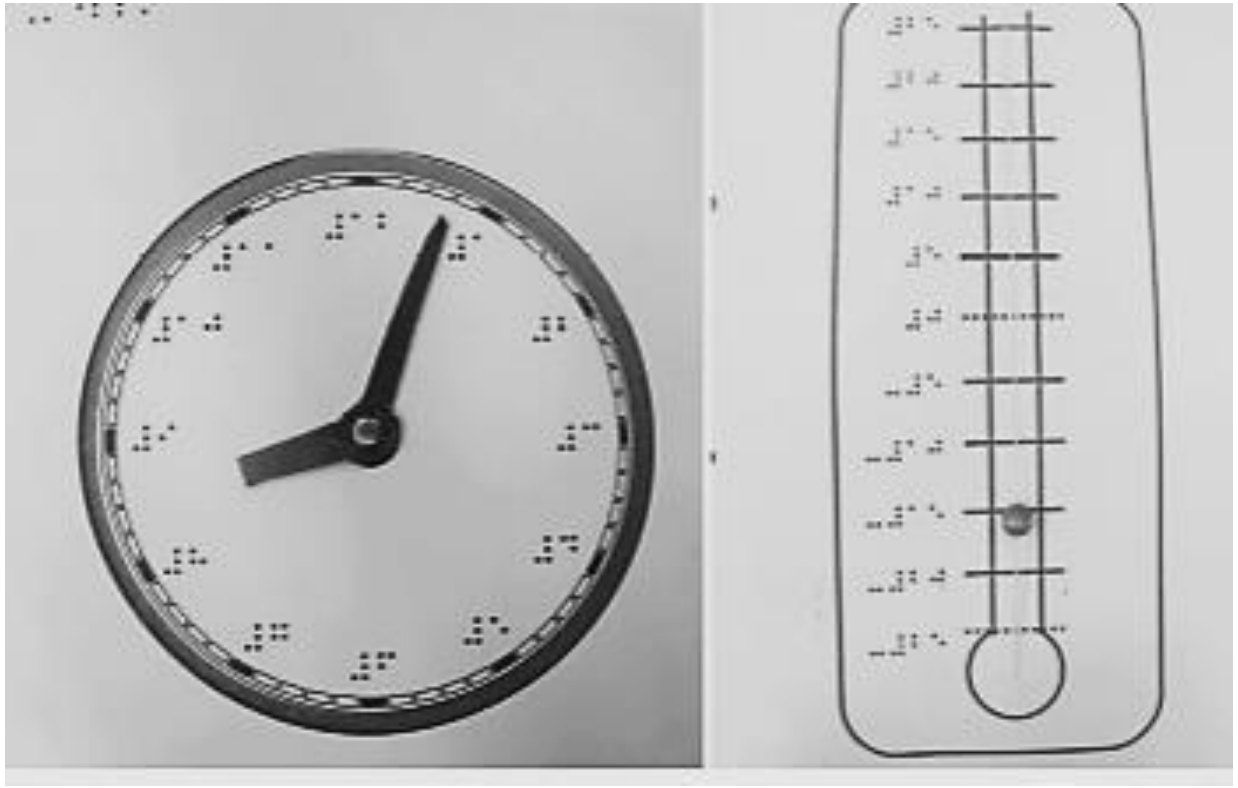
Creating Graphics Continued

- Add kinesthetic interaction
  - Moveable clock hands,
  - Bead on string for thermometer or graph
- (Curtin, 2019)



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Types of Tactile Graphics

- Collage
- Tooled
- Foil
- Machine generated (thermoform)
- Swell-Form Graphics
- Embossed
- Tactile Symbols
- Tactile Tools:
  - Raised-line measuring tools
  - Tactile math tools
  - Cranmer Abacus, etc.

Student Creation of Graphics

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Drawing

- Reinforces understanding
  - Concepts
  - Language
  - Mental Map
- Essential aspect of literacy

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Learners Creating and Drawing

- Enables two-way communication.
- Students demonstrate their understanding of a concept or idea.

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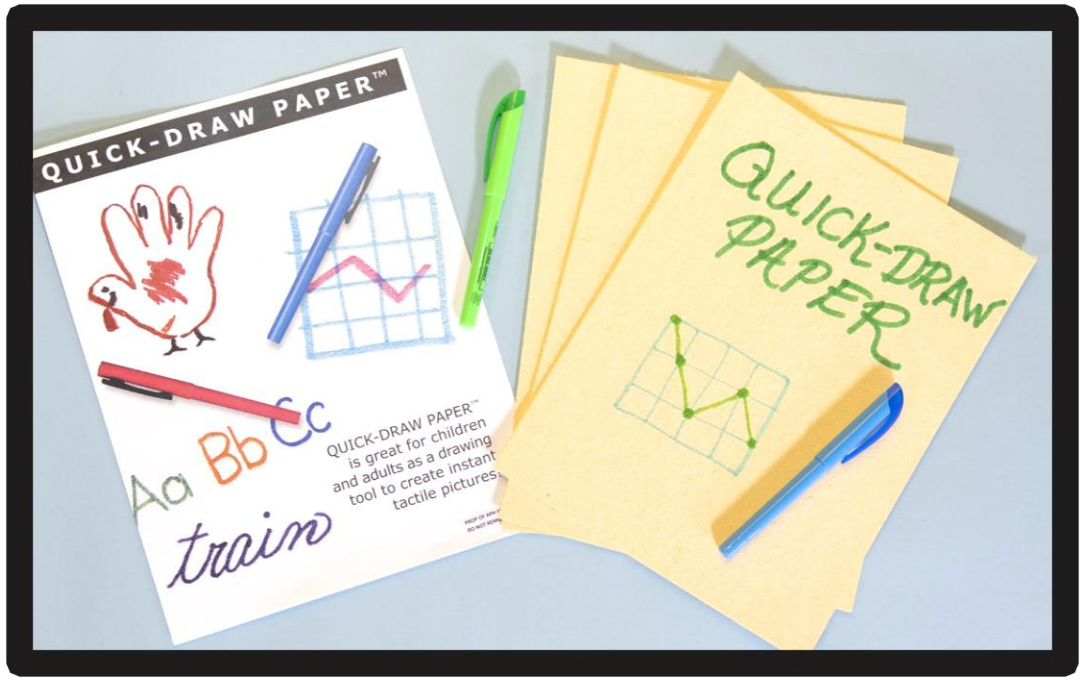
Tools for Drawing



- Collage image using:
  - string
  - yarn
  - foam shapes, etc.
  - glue onto a piece of paper or cardboard
- Playdough or modeling clay
- Wikki Sticks

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APH Tools for Drawing

- Draftsman Board
- Quick-Draw Paper
- TactileDoodle
- Cork board and rubber bands
- Picture Maker Wheatley Tactile Diagramming Kit

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Importance of Graphics Literacy: Example

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Our Learner

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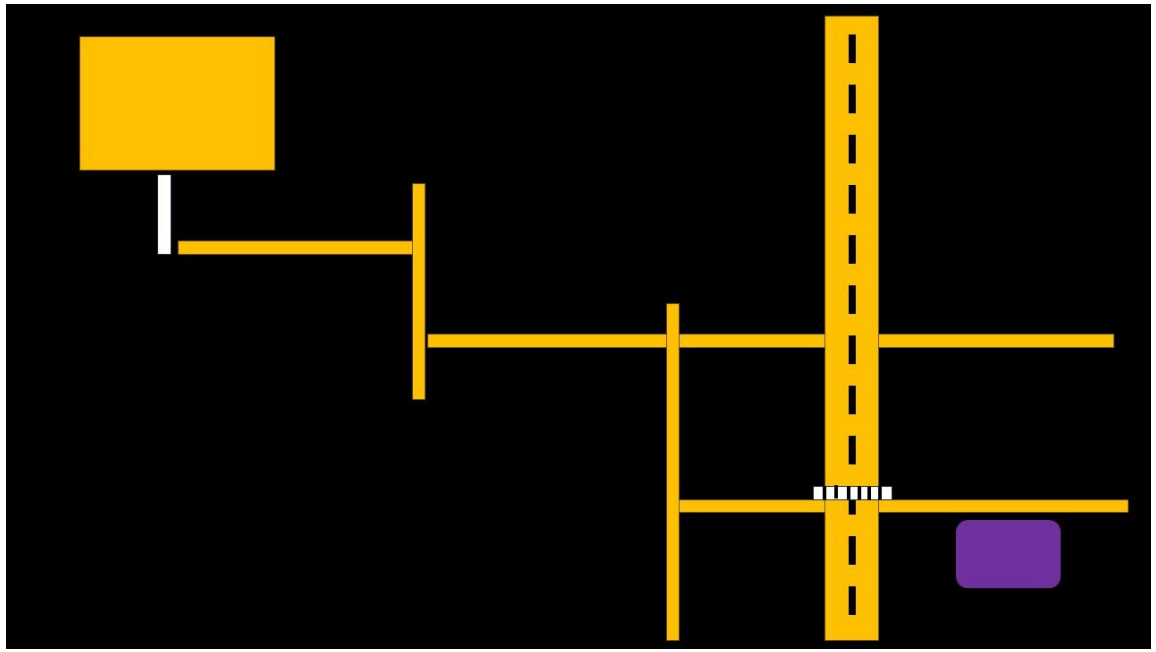
Understanding the Route

Tactile Town Depiction

Actual Map of Route



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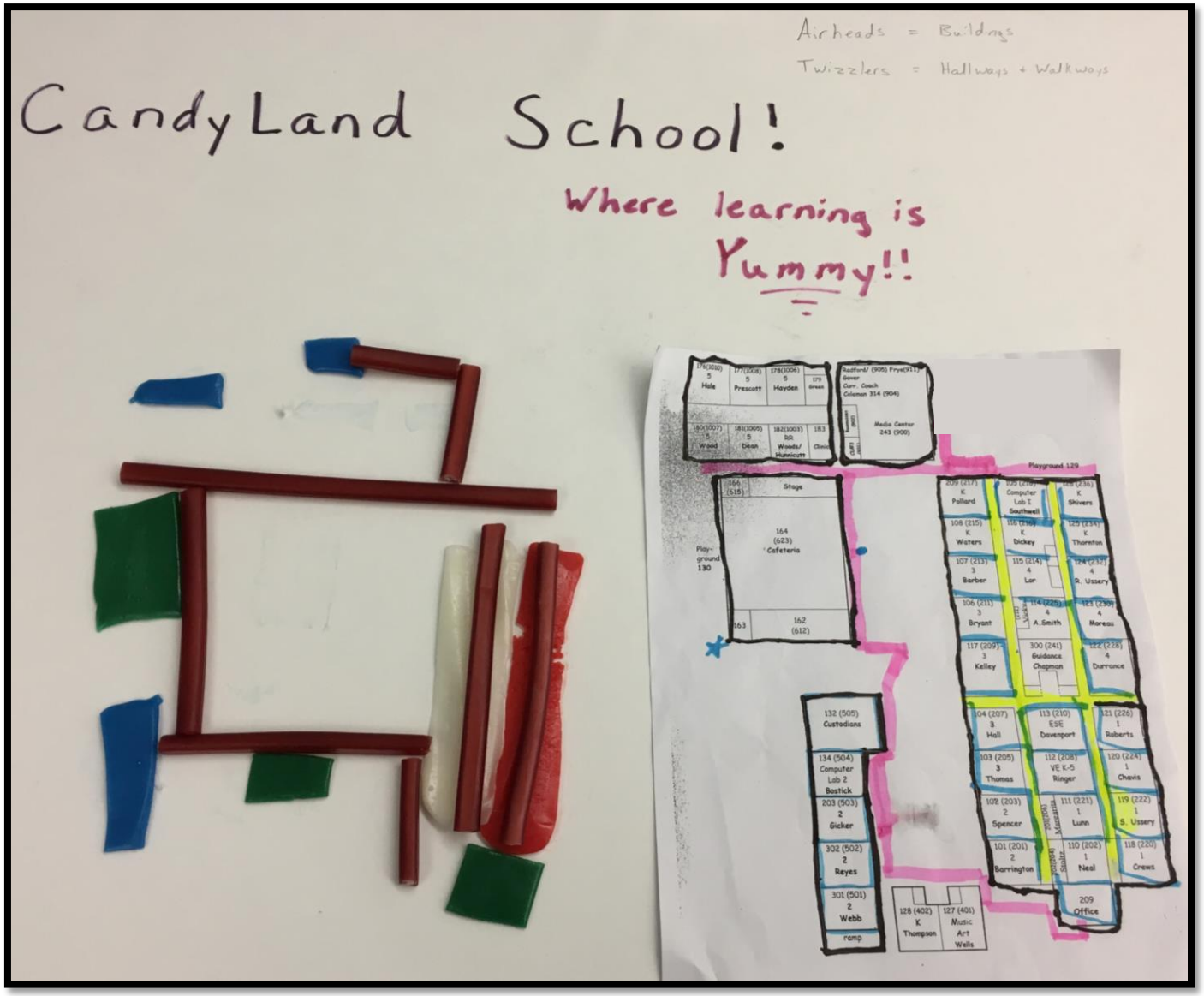
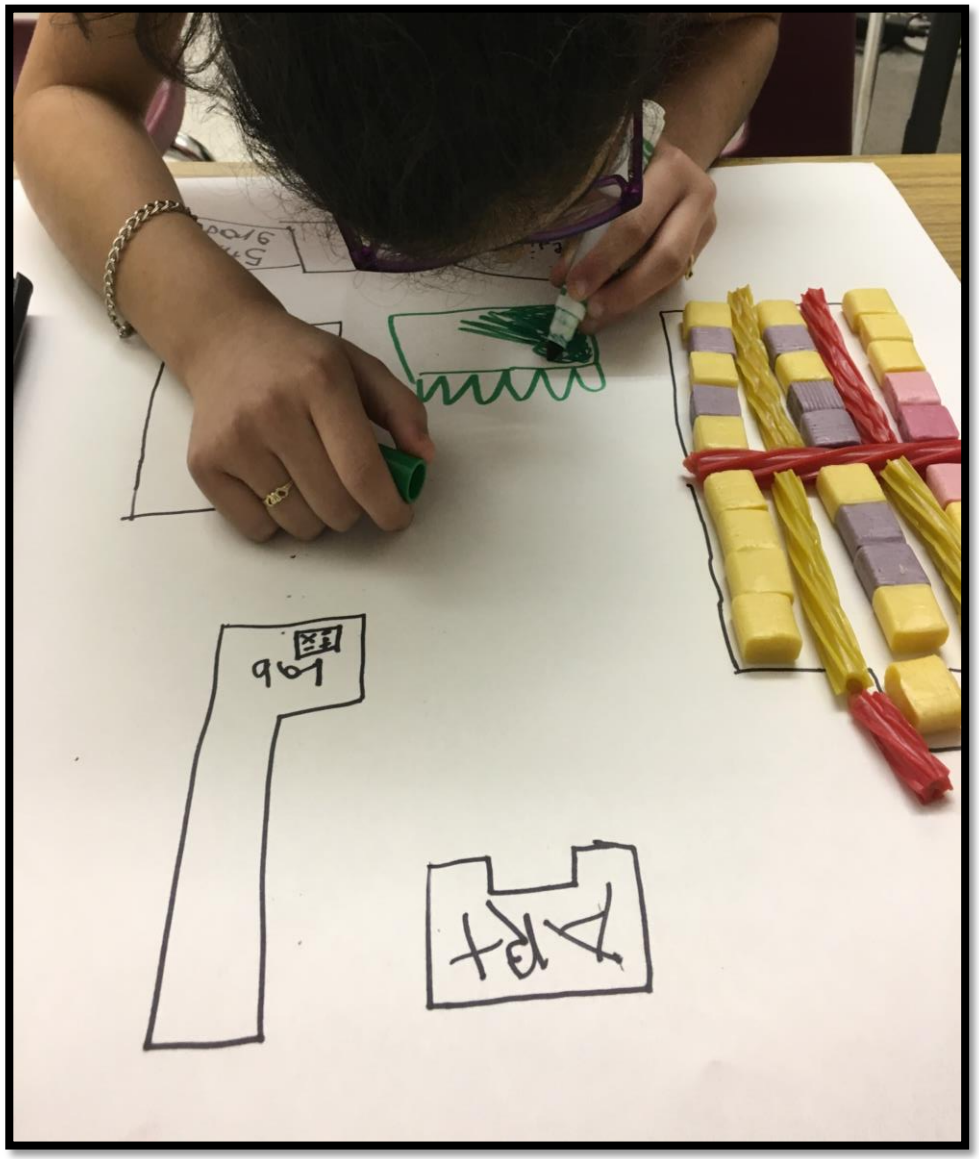
Example Strategies


Airheads = Buildings
Twizzlers = Hallways + Walkways
CandyLand School!
Where learning is Yummy!!
Playground 129
Playground 130
164 (623) Cafeteria
Stage
Media Center 243 (900)
Hale
Prescott
Hayden
Dean
Woods/ Hunnicutt
Wood
Clinic
Pollard
Computer Lab 1 Southwell
Shivers
Waters
Dickey
Thornton
Barber
Lor
R. Ussery
Bryant
A.Smith
Moreau
Kelley
Guidance Chapman
Durrance
Hall
ESE Davenport
Roberts
Thomas
VE K-5 Ringer
Chavis
Spencer
Lunn
S. Ussery
Barrington
Neal
Crews
Office
Custodians
Computer Lab 2 Bostick
Gicker
Reyes
Webb
ramp
Thompson
Music Art Wells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Art

Foundational Skills
are **key** for all ages and
developmental levels.

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APH HIVE Discussion Board Activity

Think about one of your tactile learners, what new ideas do you have for evaluating and strategically teaching touch skills and exploration of tactile graphics?

References

- Adkins A., Baltisberger S., Kitchen S., & Sewell D. (2022). *Early Tactile Learning Profile.* https://tsbviedu.wpengine.com/wp-content/uploads/assets/documents/statewide-resources/early-tactile-learning-profile-combined-fillable.pdf
- Adkins, A., Sewell, D., & Cleveland, J. (2016). *The Development of Tactile Skills*. *https://www.tsbvi.edu*. https://www.tsbvi.edu/tx-senseabilities/issues/fall-winter-2016/the-development-of-tactile-skills
- Allman, C. B. (2013). *ECC Essentials: Teaching the Expanded Core Curriculum to Students with Visual Impairments* (S. Lewis, Ed.). AFB Press.
- American Printing House. (2023, November 9). *Teaching Touch Kit | American Printing House*. https://www.aph.org/product/teaching-touch-kit/
- Bara F, Gentaz E, Valente D. *The Effect of Tactile Illustrations on Comprehension of Storybooks by Three Children with Visual Impairments: An Exploratory Study*. Journal of Visual Impairment & Blindness. 2018;112(6):759-765.

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References (2 of 3)

- *Creating tactile graphics*. (2021, November 18). Build a Better Book. https://www.colorado.edu/project/bbb/creating-tactile-graphics
- Curtin, L., Lewis, D., & Holloway, L. (2019). *Documenting Tactile Graphicacy*. Journal of the South Pacific Educators in Visual Impairments, Vol. 12(No. 1), 82-98. http://www.spevi.net
- Dunst, J., & Gorman, E. (2011) *Tactile and Object Exploration Among Young Children with Visual Impairments*. Center for early Literacy Learning (CELL) Reviews, Vol. 4(No.2), 1-9. https://www.pathstoliteracy.org/resource/tactile-and-object-exploration-among-young-children-visual-impairments/
- Hathazi, A., & Bujor, M. (2013). *Development of Tactile Strategies and use of Tactile Resources in Emergent Literacy at Children with Visual Impairment*. Studia UBB PSYCHOL.-PAED., LVIII(2), 41–51.
- Morash, V. S., & McKerracher, A. (2014). The Relationship between Tactile Graphics and Mathematics for Students with Visual Impairments. *Terra Haptica*, *4*.

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References (3 of 3)

- Paths to Literacy. (2023, September 9). *Let's Learn Lines*. https://www.pathstoliteracy.org/lets-learn-lines/
- Paths to Literacy. (2022, May 19). *Braille Readiness Grid – Paths to Literacy*. https://www.pathstoliteracy.org/resource/braille-readiness-grid/
- Rosenblum, L. P., Cheng, L., & Beal, C. R. (2018). Teachers of Students with Visual Impairments Share Experiences and Advice for Supporting Students in Understanding Graphics. *Journal of Visual Impairment & Blindness*, *112*(5), 475–487. https://doi.org/10.1177/0145482x1811200505
- Withagen, A., Heins, L., Blok, A., Betten, A., Buurmeijer, A., Mul, M., & Oosterlaak, L. (2010). *In touch: Helping Your Blind Child Discover the World.* (Royal Dutch Visio, Centre of Expertise for blind and partially sighted people, Huizen, Ed.).

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Thank You!

Jeff Schwartz

Director of Regional Training & Outreach

jschwartz@aph.org

Jennifer Brooks

Outreach Specialist

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3:00–4:30 PM (ET)

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