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BRICK-BY-BRICK LITERACY

LEGO BRAILLE BRICKS
series



AMERICAN
PRINTING
HOUSE



Illinois School for the Visually Impaired

Gina Carr

- Library Associate
- Retired Teacher of Students with Visual Impairments

Jill Hackman

- Teacher of Students with Visual Impairments

Objectives

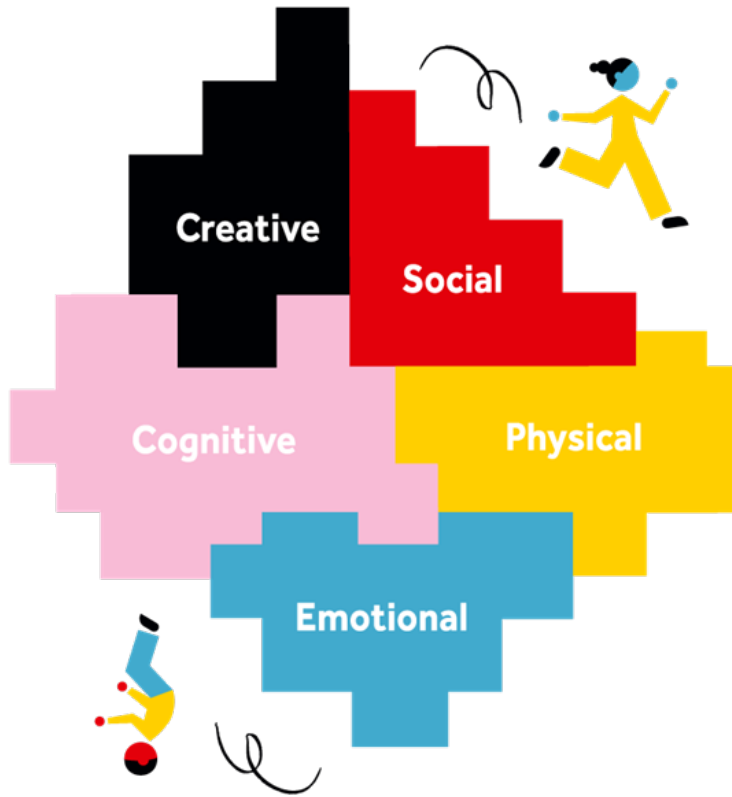
- Participants will identify 5 **Holistic Skills** that children develop during play which is critical to learning.
- Participants will identify 5 **Characteristics of Playful Learning Experiences**.
- Participants will **observe** students engaged in play-based learning activities using LEGO Braille Bricks.
- Participants will pair **knowledge of braille** and tactile skills with **literacy activities** using LEGO Braille Bricks.



HOLISTIC SKILLS FOR DEVELOPMENT

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Holistic Skills

- Cognitive
- Creative
- Physical
- Social
- Emotional



CHARACTERISTICS OF PLAYFUL LEARNING EXPERIENCES

LEGO Foundation

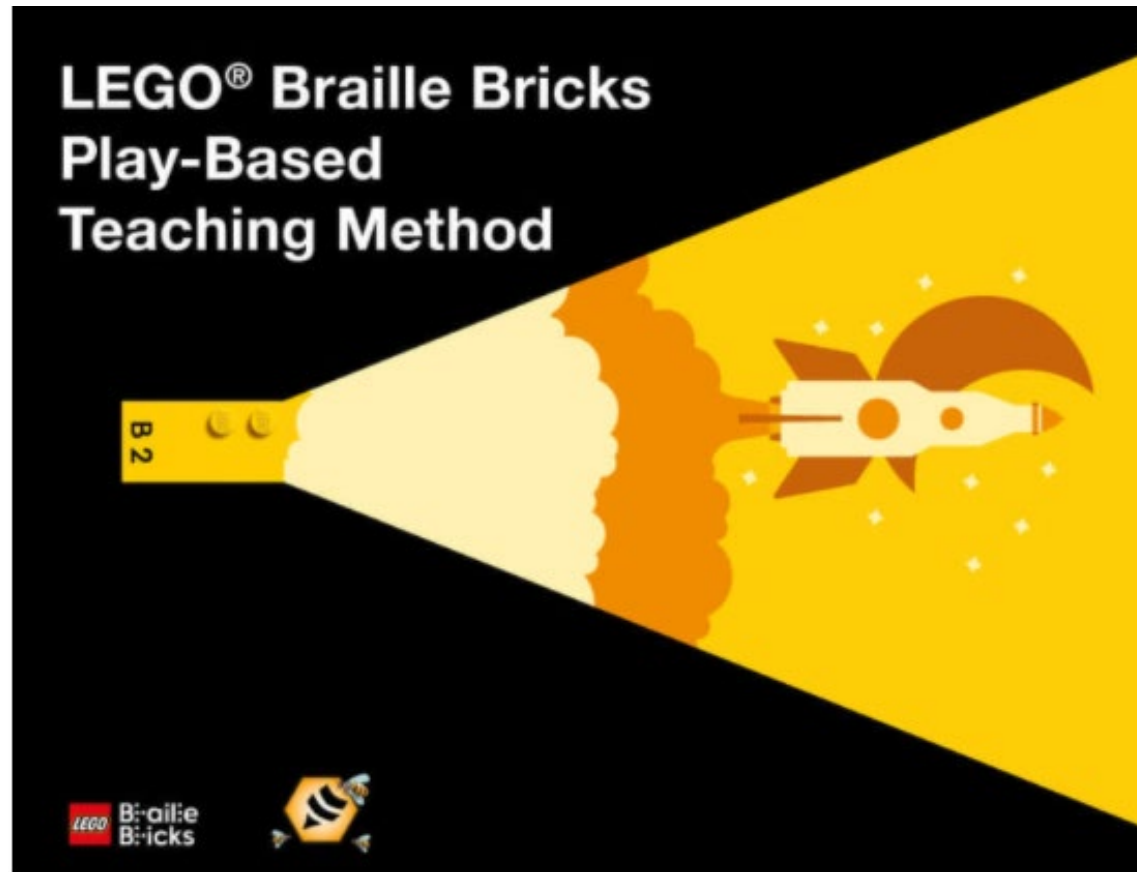
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Playful Learning Experiences

- Joyful
- Meaningful
- Actively engaged
- Iterative
- Socially Interactive

APH Hive (www.aphhive.org)



LEGO BRAILLE BRICK ACTIVITIES

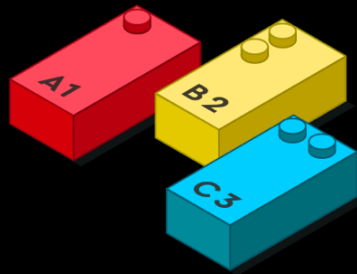
Pre-braille
Braille



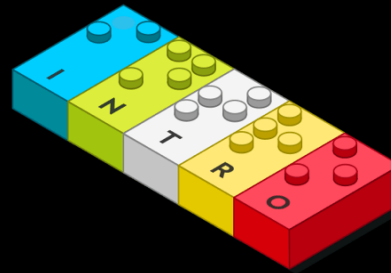
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LEGO Braille Activity Groups

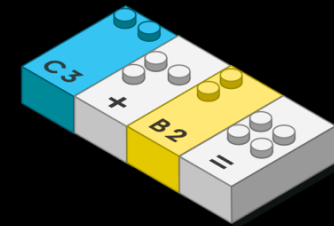
Characters



Literacy



Numeracy



Contents

- 20 – a
- 8 – b, f, j, k, l, m, s, & u
- 12 – c, d, n, g, h, o, r, & t
- 24 – e
- 16 – i
- 4 – v, w, x, y, z
- capitals & periods
- UEB simple math symbols (addition, subtraction, division, multiplication...)





GAMES ARE GREAT

with LEGO Braille Bricks

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Sorting and Observing





Next, make this FUN!!

- Not aiming for fluency or speed
- Reinforce knowledge of letters
- Gain and use word skills, literacy
- Be creative

Sibs Working Together (having fun!!)

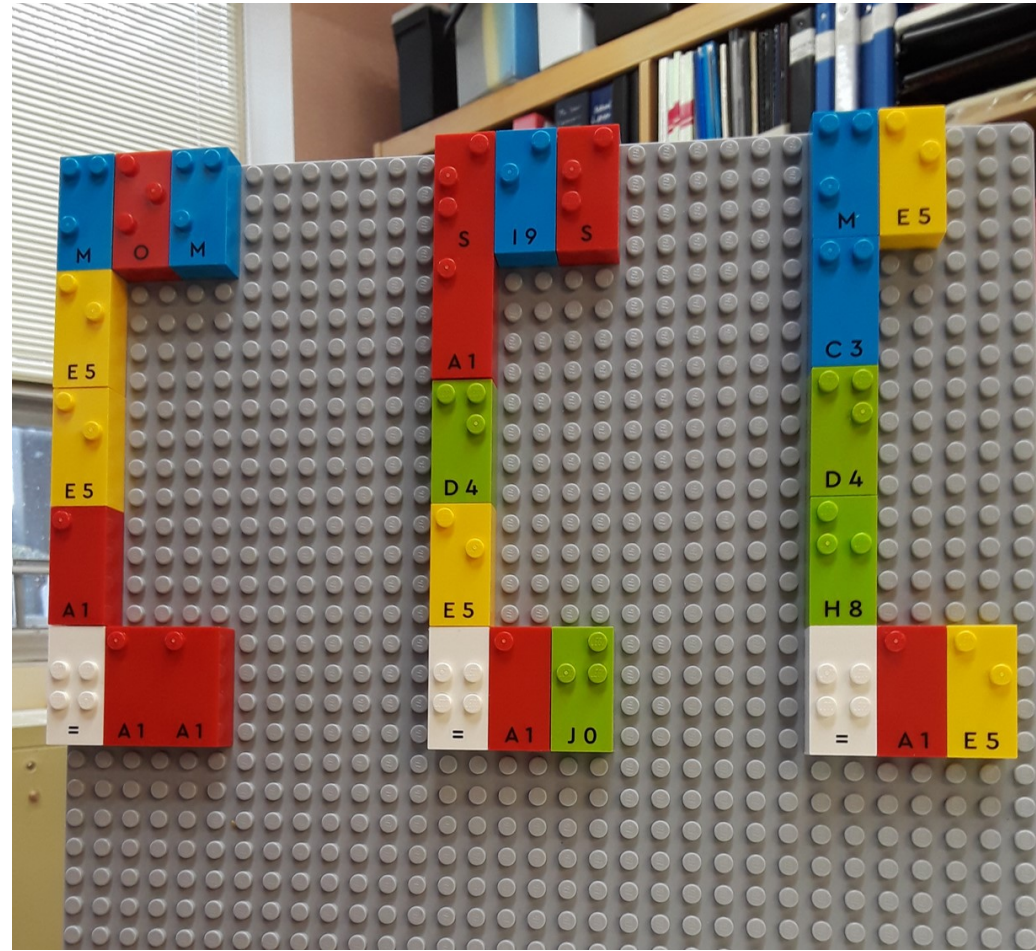
Video of brother and sister working together to build the word “jelly” using LEGO braille bricks.

Video of brother and sister working together to build the word “glad” using LEGO braille bricks.

Spice It Up

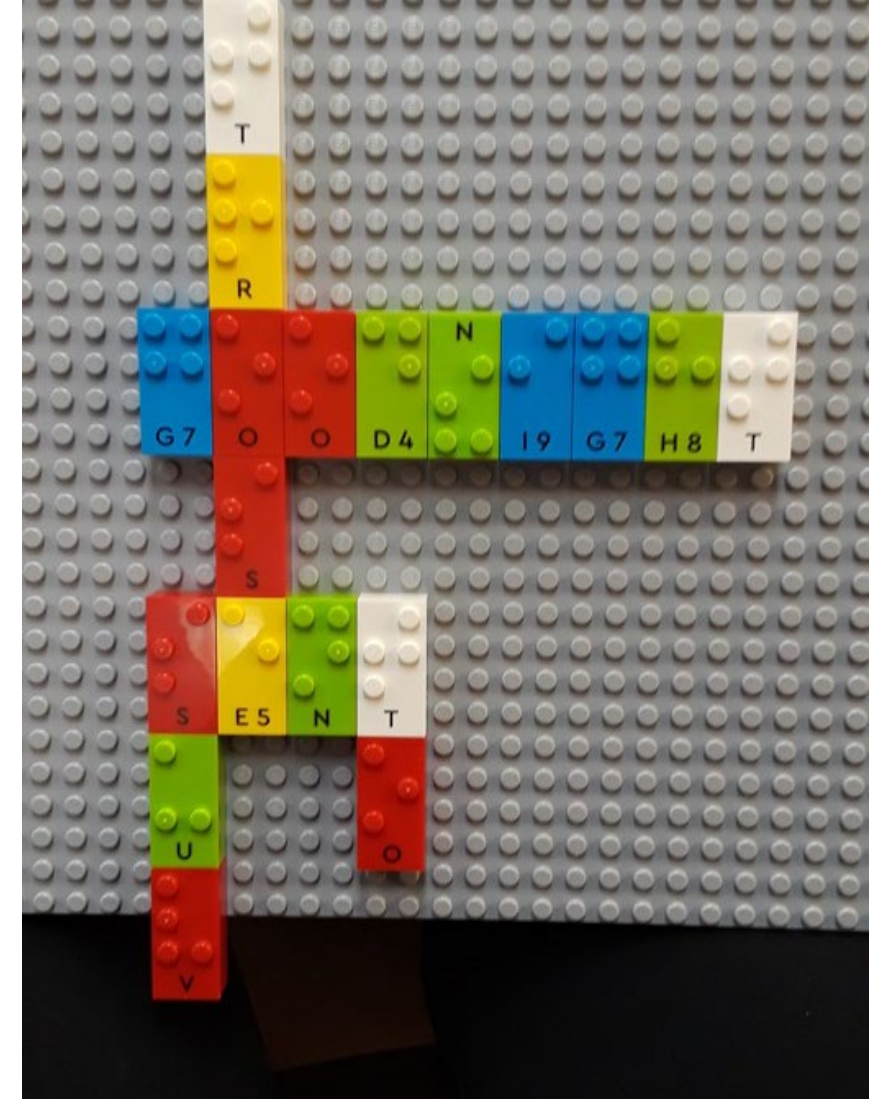
- Play a peppy tune in the background
- Hit a buzzer or bell when a letter is placed.
- Make a score sheet
- Give each contestant their own board or make them all share one
- <https://www.thefreedictionary.com/4-letter-words.htm>

Make a Scoreboard



Change up the Rules

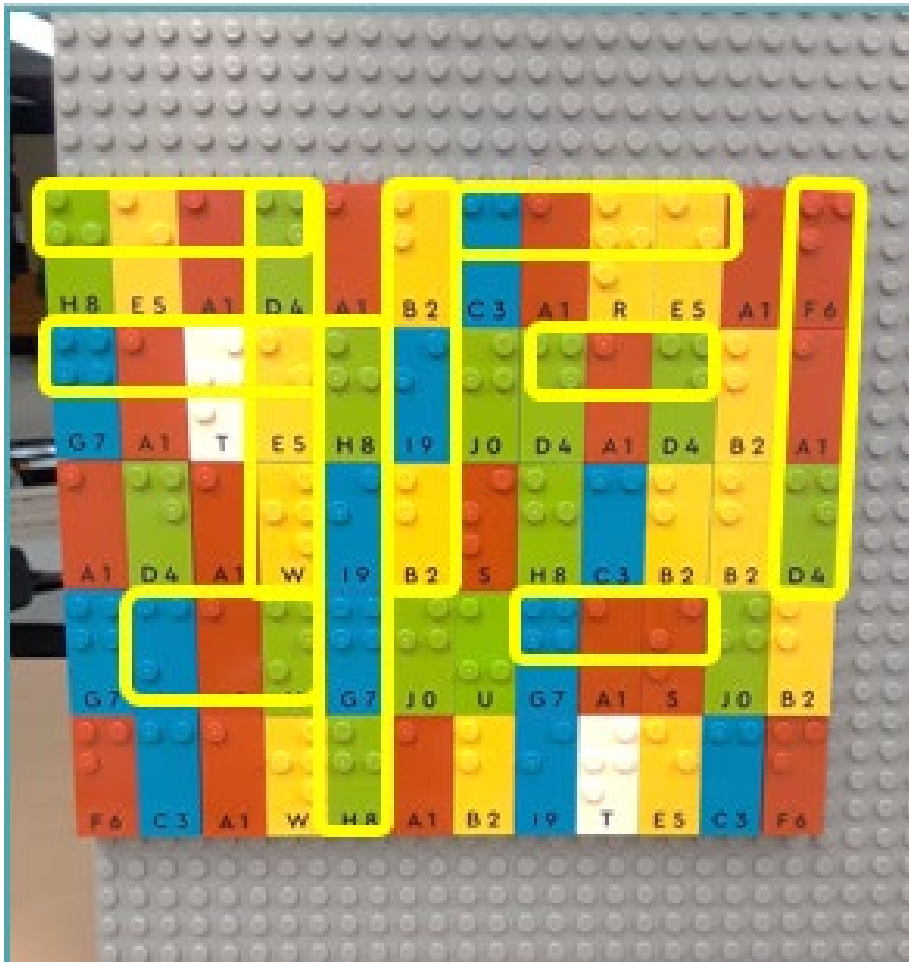
- When making a crossword puzzle or game it is ok if they go over the edge.
- Maybe you get more points?



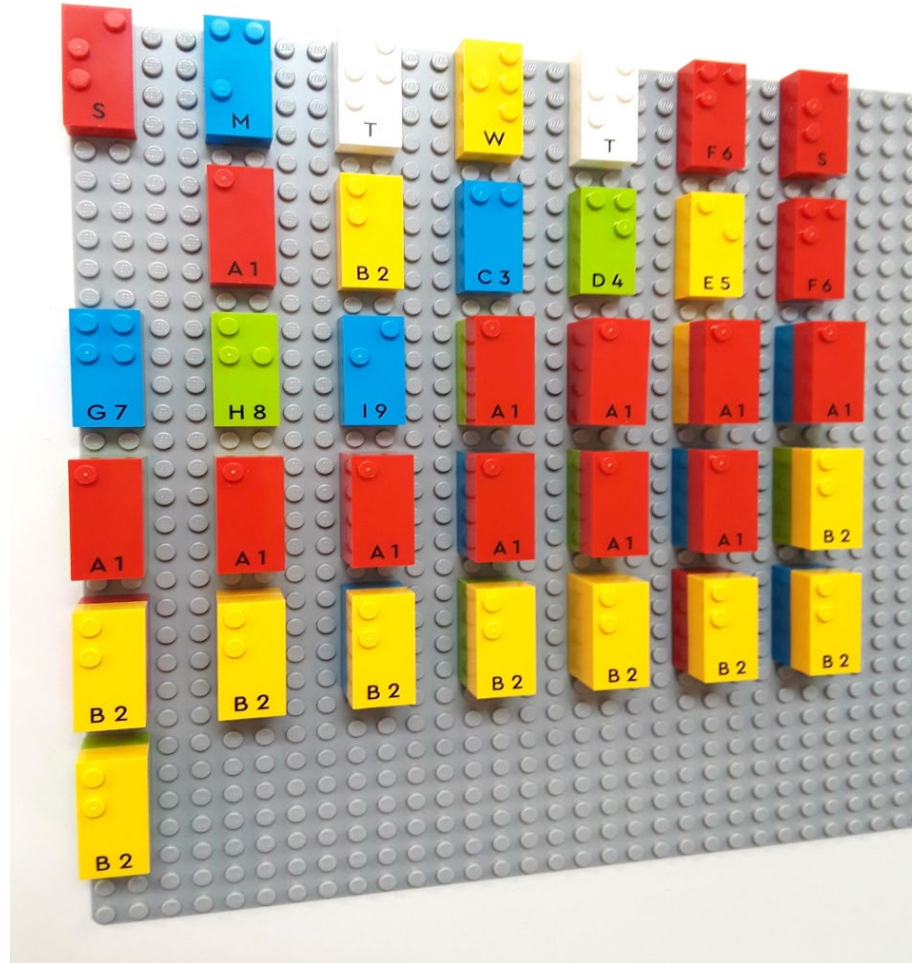
Scrabble

Video of student building word in a game of Scrabble.

Word Search



Calendar



Poll

In the example of Pan and Oliver working together to spell words, which holistic skill engages the siblings in learning?

A. Cognitive

B. Creative

C. Physical

D. Social 

E. Emotional

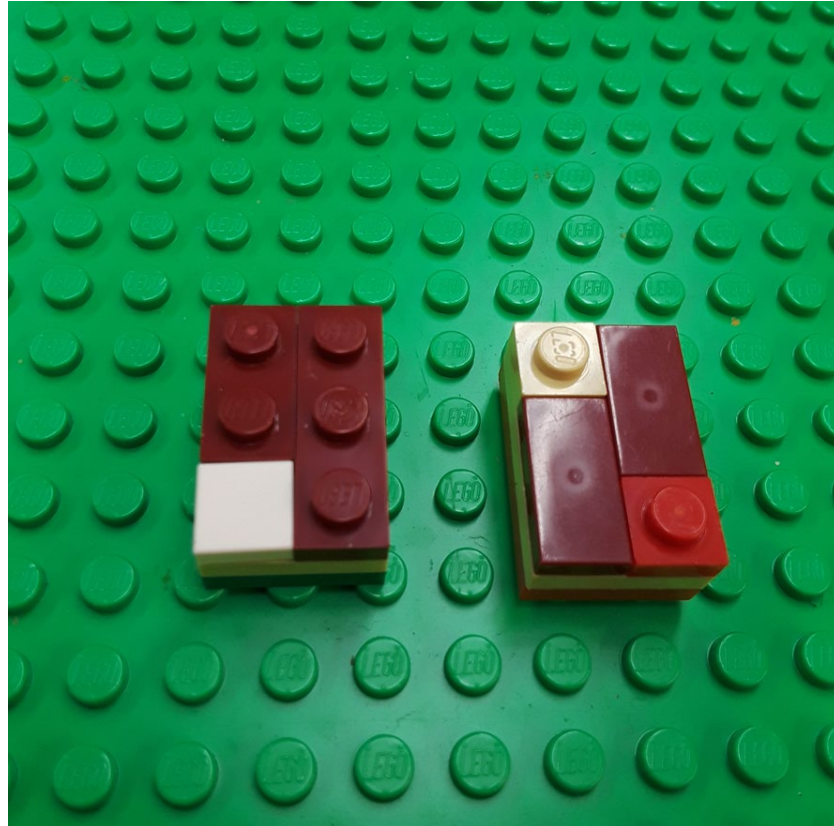


ADAPTATIONS FOR PLAY

Using LEGO Braille Bricks

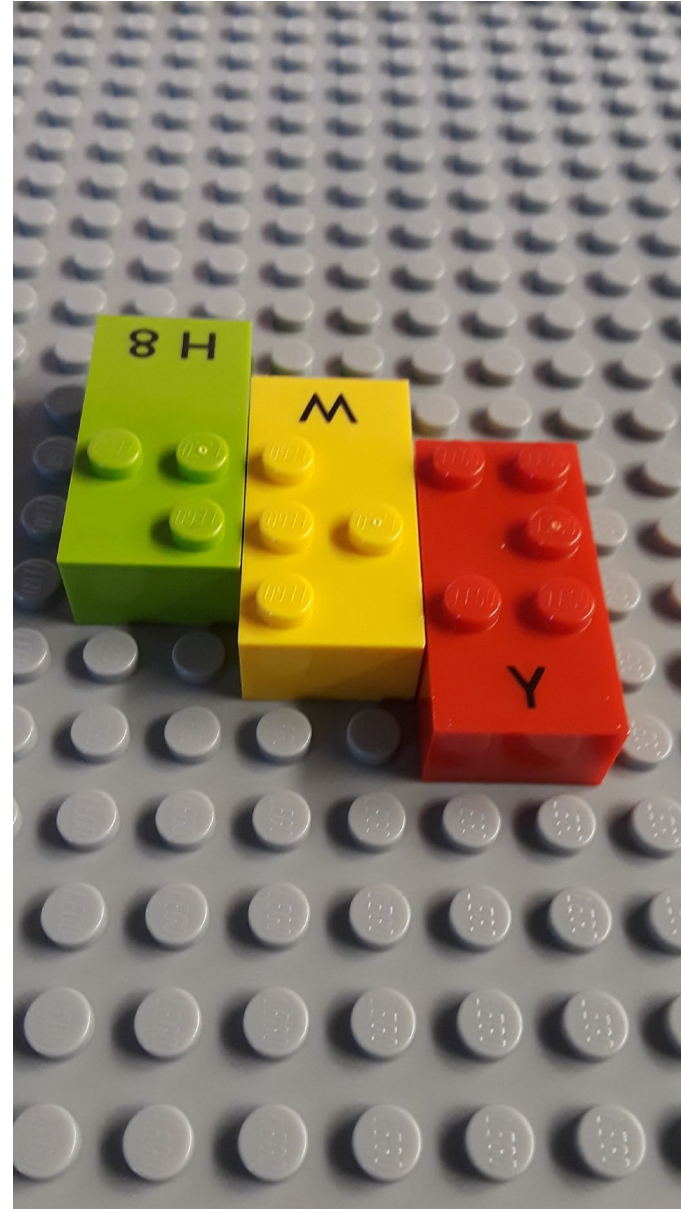
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Make your own



Support Creativity

- It is ok if they do not line up.
- Give points for being creative



Vary the Base (mat, playdough, cookie sheet)

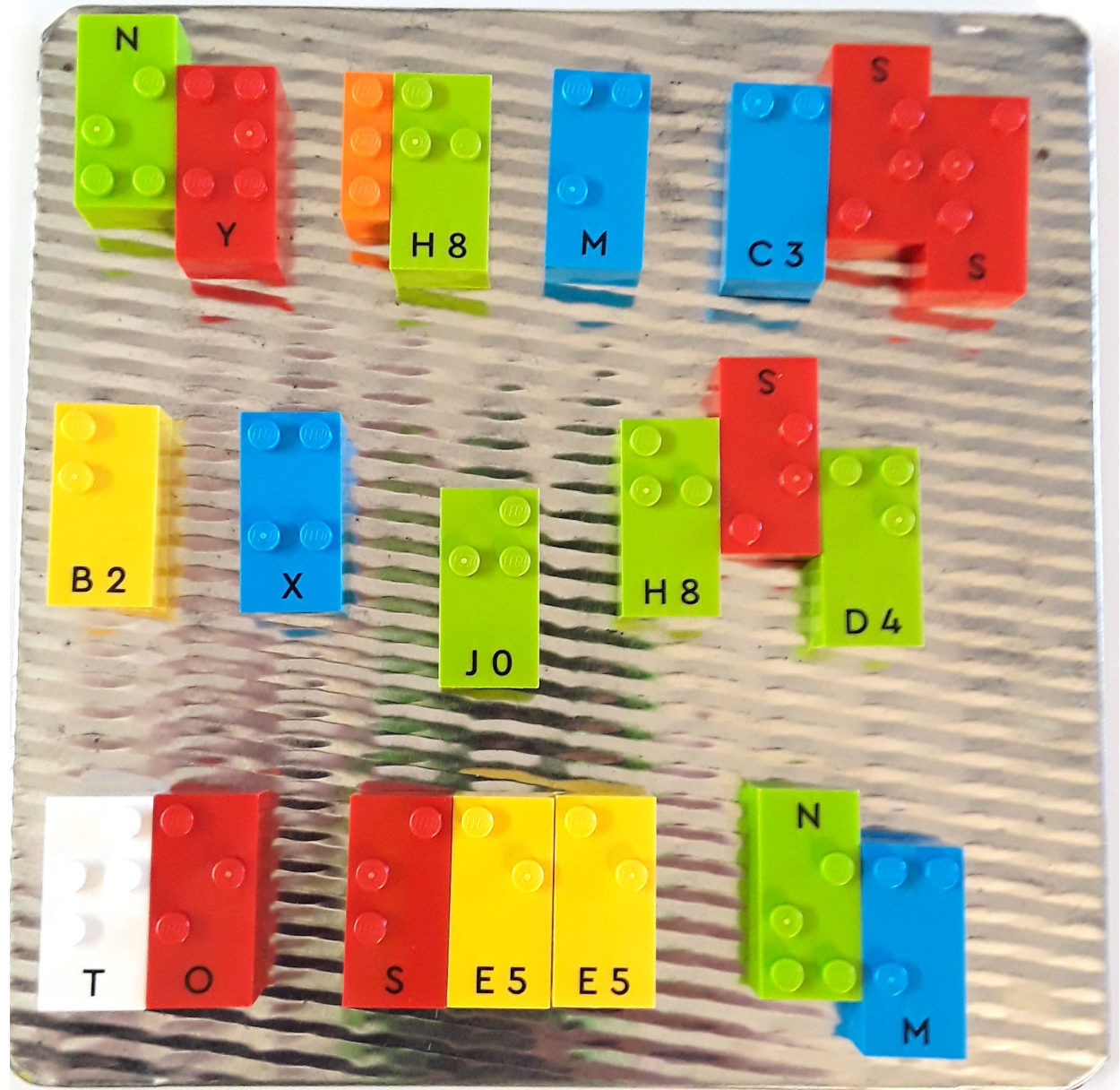
- LEGO mat: Pincer practice, strength building, fine motor
- Cookie sheet: Legos stick with magnets, easy to arrange, flexible heights
- Play dough: Cover dough with plastic, push Legos into dough, pull them up, arrange Legos

Magnet placement

Video of magnet placed
inside back of braille brick.


Video of removing magnet
from back of braille brick.

Special layout



Poll

In the example of making contractions with existing braille bricks, a student practices which Holistic Skill?

- A. Cognitive 
- B. Creative
- C. Physical
- D. Social
- E. Emotional



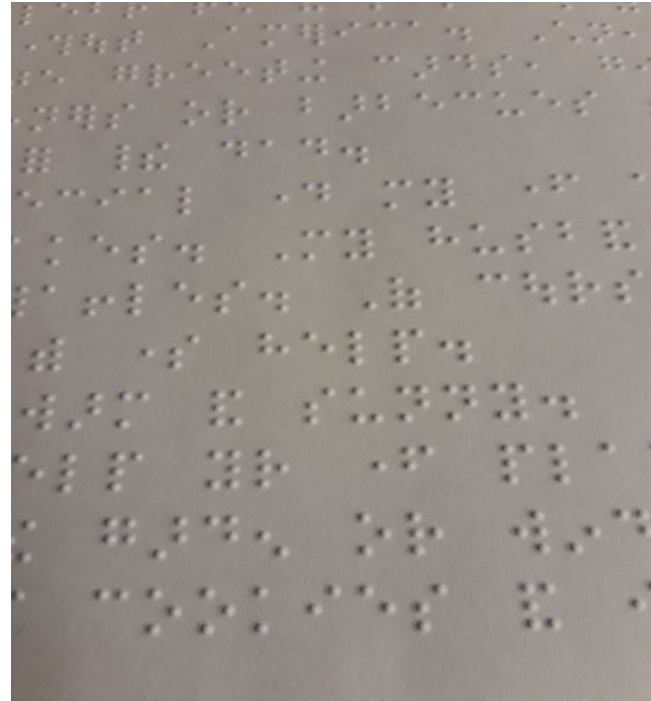
CORE CURRICULUM

Using LEGO Braille Bricks

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English Language Arts

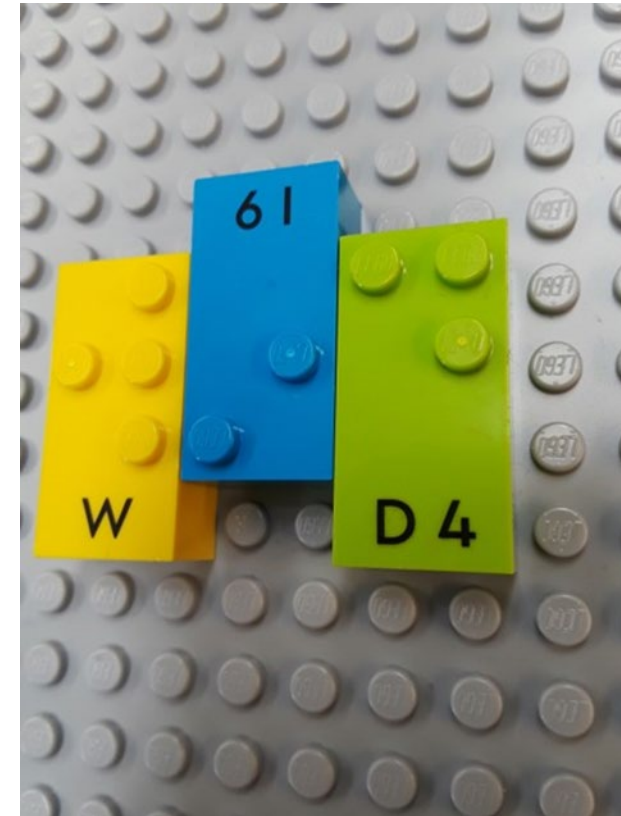
- Students read short informative text
- Discuss then choose a sentence
- Choose a word from sentence
- Build word on baseplate
- Talk about what each wrote
- Sum up text



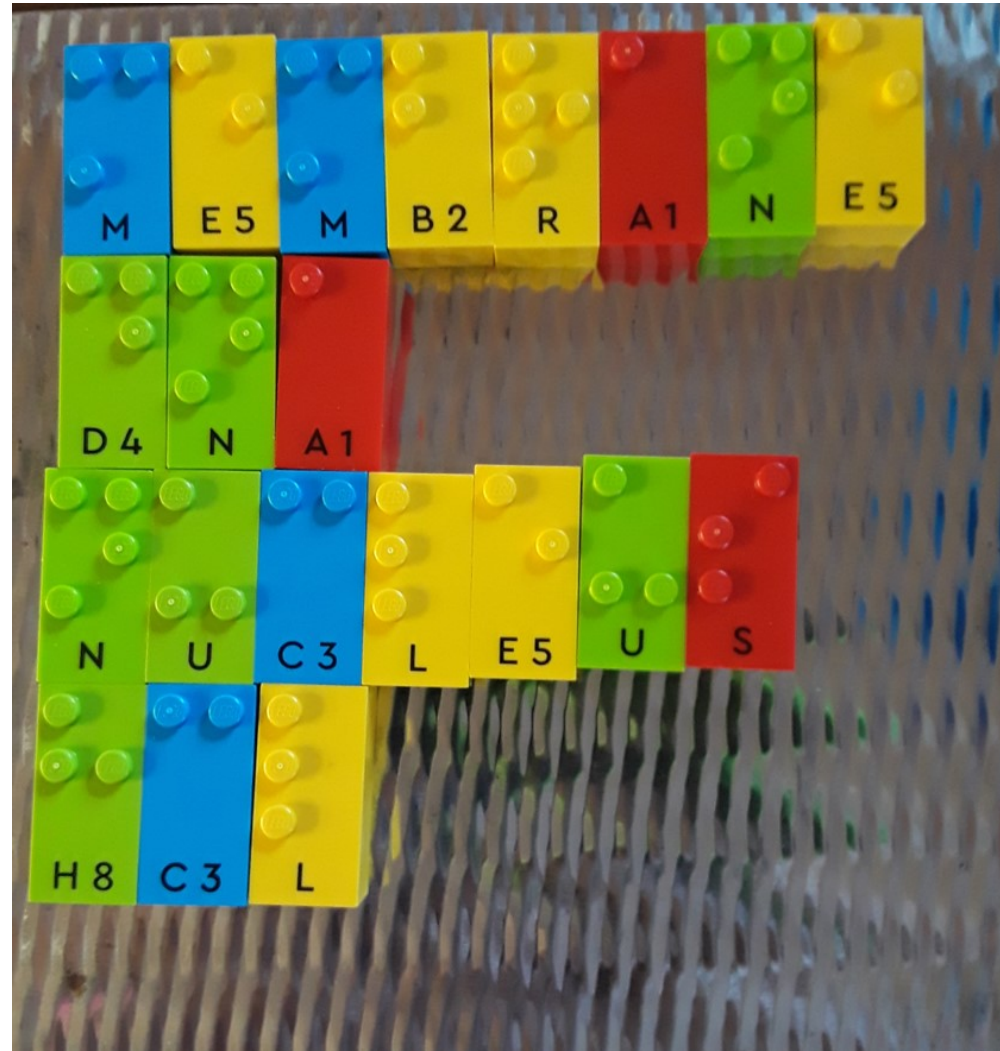
English Language Arts (cont.)

Passage on hot air balloons: “A hot air balloon uses the speed and direction in which the wind travels to move.”

The student chooses the word “wind” and spells it on the baseplate.



Science



Poll

Do you have access to a LEGO Braille Bricks kit to use with student(s)?

- A. Yes, I'm using the product.
- B. No, I don't know how to get my hands on the product.
- C. No, I don't have the need for using the product.



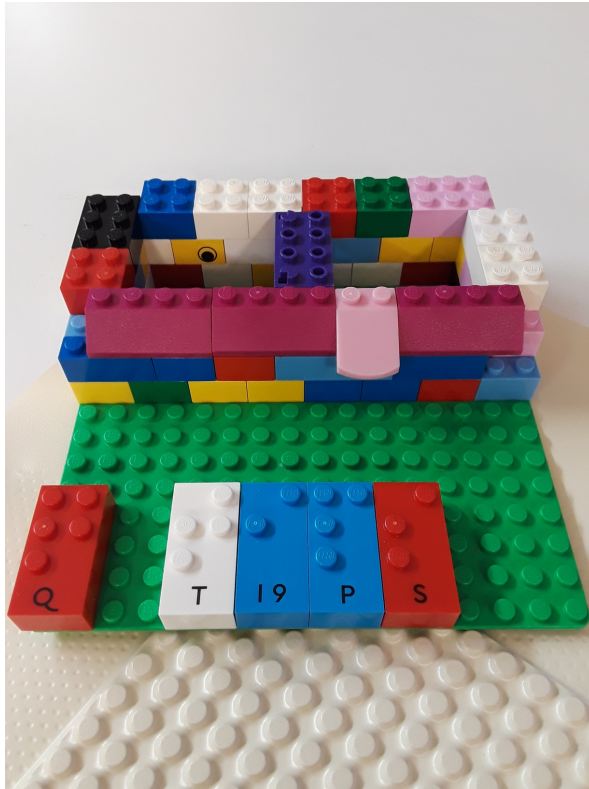
TIPS OF THE TRADE

Using LEGO Braille Bricks

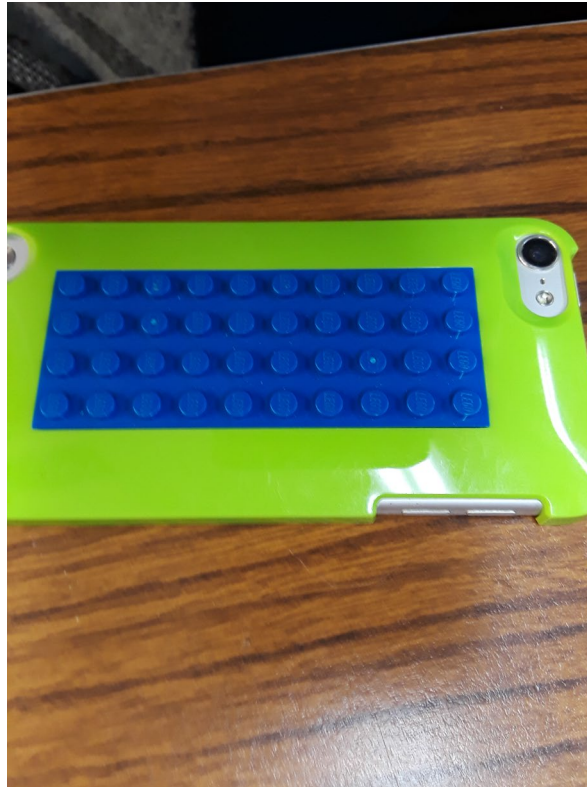
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Sample Projects

Q tip holder



Lego case for iPod



Toothbrush holder



Quick tip on taking off Legos

Video demonstration of removing braille brick using LEGO removal tool.



Rewards??

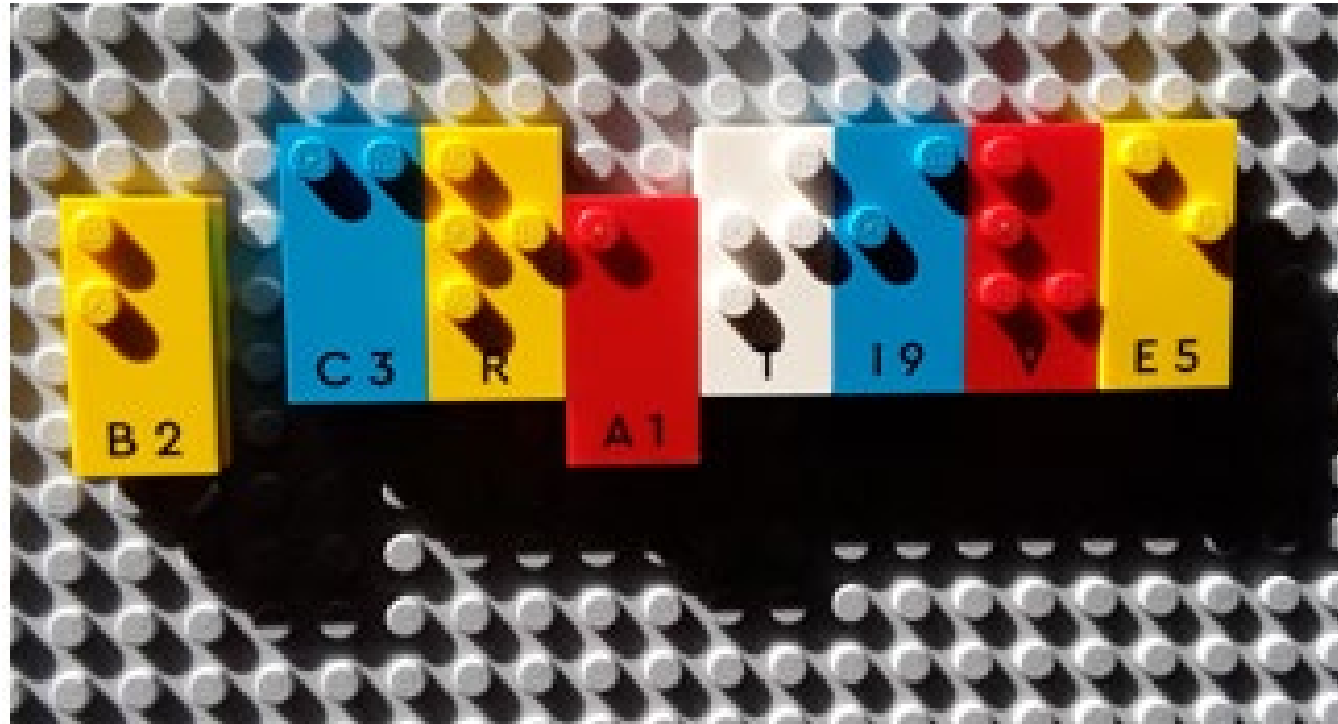
- Jello jigglers
- Chocolate
- Cornbread

Cleaning braille bricks

Mesh bag with LEGO bricks and Thermoform words

- Dip in water/chlorine mix and dry
- Or spray with disinfectant and dry

Be creative



Thank you!

- Gina Carr
- Jill Hackman



Requesting LEGO Braille Bricks

<https://www.aph.org/lego-braille-bricks-kit-request-form/>

Upcoming LEGO webinars

1:00 – 2:00 pm Eastern Time

- March 10, More Playful Experiences for Pre-Braille Instruction
- March 17, Brick-by-Brick Numeracy