BRICK-BY-BRICK LITERACY

LEGO BRAILLE BRICKS series
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

LEGO Foundation
Holistic Skills

- Cognitive
- Creative
- Physical
- Social
- Emotional
CHARACTERISTICS OF PLAYFUL LEARNING EXPERIENCES

LEGO Foundation
Playful Learning Experiences

- Joyful
- Meaningful
- Actively engaged
- Iterative
- Socially Interactive
APH Hive (www.aphhive.org)
LEGO BRAILLE BRICK ACTIVITIES

Pre-braille
Braille
<table>
<thead>
<tr>
<th>Characters</th>
<th>Literacy</th>
<th>Numeracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1, B2, C3</td>
<td>1, 2, 7, 8, 0</td>
<td>C3, 4, B3, II</td>
</tr>
</tbody>
</table>
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
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
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
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
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
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