BRICK BUILDING FUN PACK



INTRODUCTION:

Welcome to your Brick Fun Pack! It's the perfect addition to the Unofficial Guide to Learning with LEGO e-book!

This brick fun pack includes STEM projects, challenge calendar, task cards, math challenge cards, bingo, I-spy, and more! I'm sure it will keep every brick fan busy.

Feel free to use this pack with one junior inventor or a whole group of junior engineers. You may copy activities as many times as you like for your class, or party but please send your friends to grab their own pack instead of sharing files.

~ Thank you!

BRICK FUN PACK EXTRAS Bingo, 1-Spy, and Emotions all with a brick theme!





STEM: BRICK CHALLENGES



Explore the world of STEM with your kids as they put their engineering skills to the test! Perfect to use with any size brick collection. This complete pack is perfect for your next STEM activity time!

What's Included:

- Brick Building Challenges
- STEM Journal Page
- Brick Supply List

STEM: 100 BRICK TASK CARDS



Cut apart the task or challenge cards, and place in a handy container near the brick collection. Easy to use ideas with the bricks you already have on-hand are perfect for rainy days, early finishers, and STEM lessons!

What's Included:

• 100 Brick Challenge or Task Cards

STEM: BRICK CHALLENGE CALENDAR

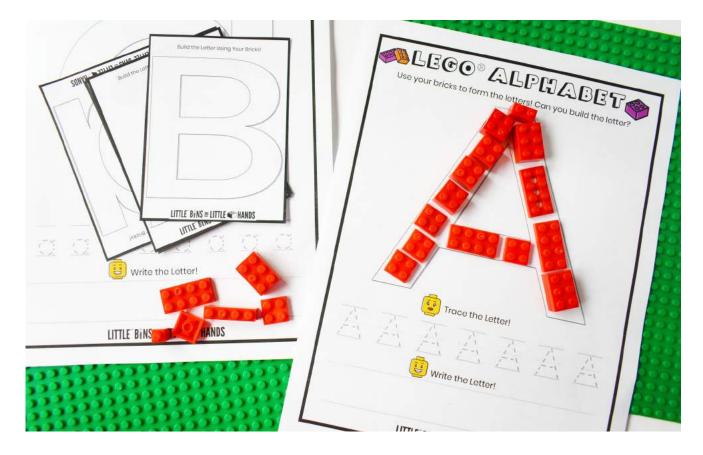


Tape or tack the challenge calendar to the brick bin, bulletin board, or fridge. Laminate for long lasting use! A new challenge each day will spark creativity and put design skills to the test!

What's Included:

• 31 Day Brick Building Challenge Calendar

BRICK ALPHABET ACTIVITY



For younger brick fans, explore letters with simple bricks. Kids can build the alphabet. This is a fun addition to the letter building activity in the e-book!

What's Included:

• Upper and LowerCase Alphabet Sheets

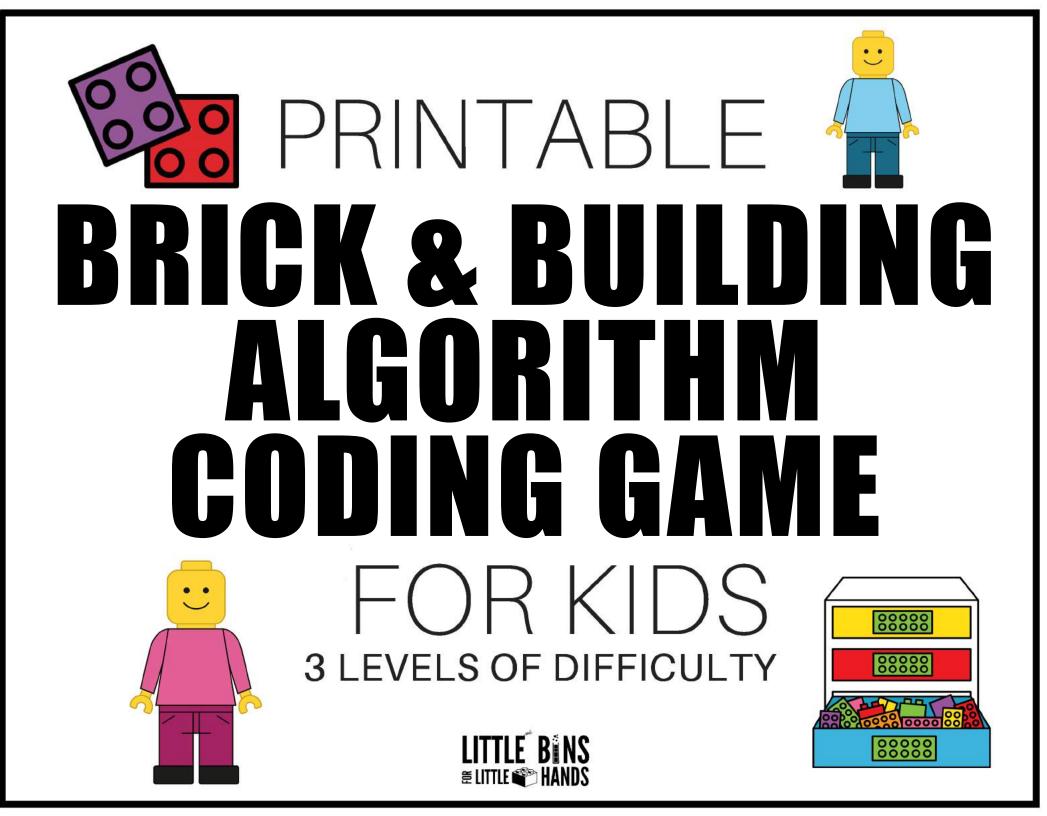
BRICK SCREEN FREE CODING

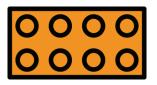


Explore the binary code and algorithms with your bricks! Instructions are included for both packs.

What's Included:

- Printable Brick Binary Code Sheets
- Printable Algorithm Game Sheets



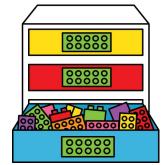


Screen-free coding with a brick building theme! Learn about algorithms as you play games.

SET UP & PLAY

Print out one of the sets of grids to set up your board. Choose a blank grid with either brick storage containers. Cut out the corresponding colored bricks for your pieces.

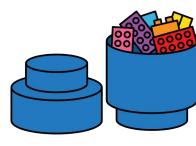
Place the colored bricks on the board in some of the blank spaces (not every space). You can play where the larger bricks are obstacles to move around and/or smaller bricks need to be collected.



Your arrows are your direction cards and how you write the code to solve the puzzle (around or collect the bricks). Included are left, right, and straight arrow pieces. You can use and re-use the grids over and over again and even laminate the sheets.

Use a minifigure as an object to move through the board to get to the brick storage containers or vice versa.

Use the directional cards to create an algorithm to reach the desired object. You can change the obstacle cards to create a new board each time. Use either the bricks on the same board! Start simple using just a few and work your way up!

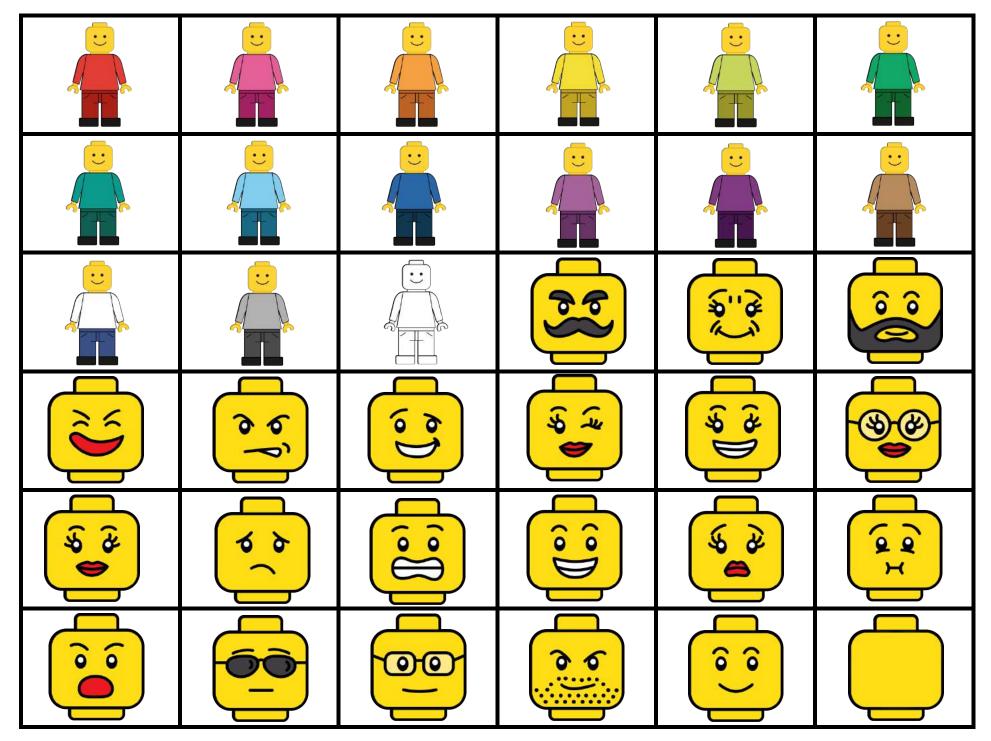


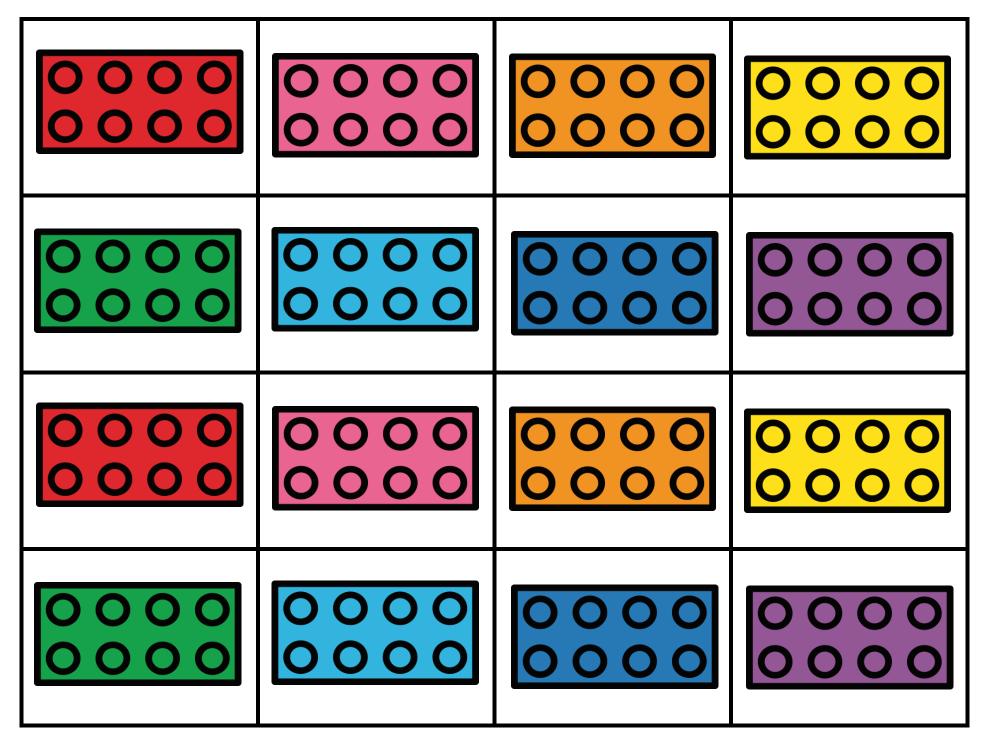
Easier version: Place out one directional card at a time as you move the object one square at a time with or without obstacles to go around.

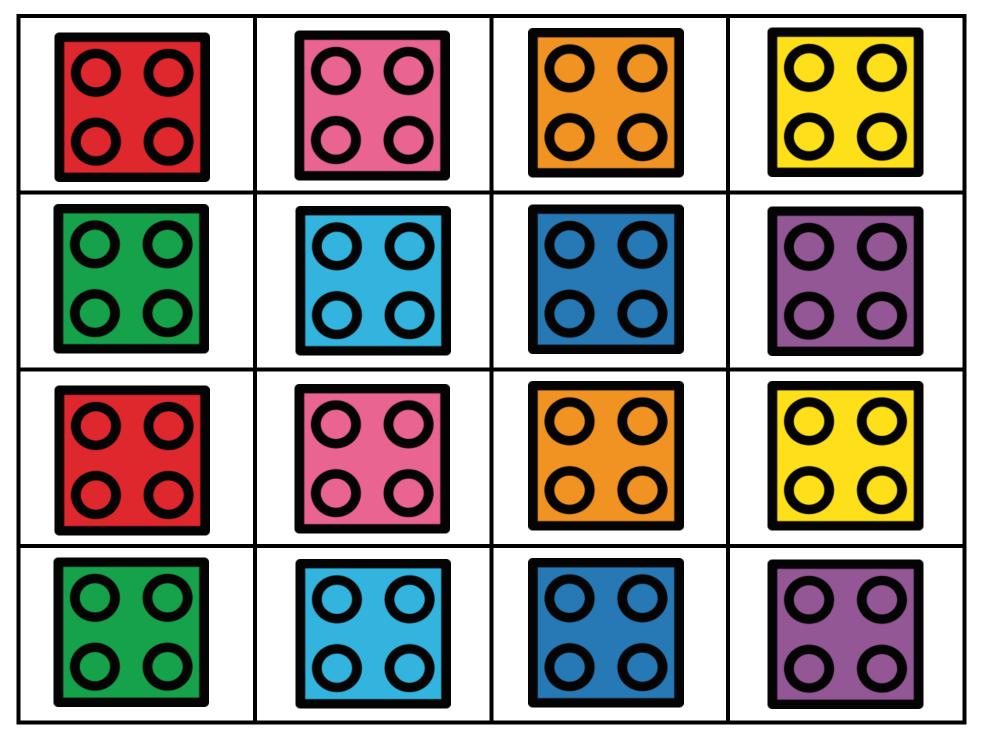
Harder version: Think out the sequence of actions ahead of time and place out a string of directional cards to show your program. Run your program (move your piece) according to your directions. Check your results. Did you make it? Do you need to fix a card?

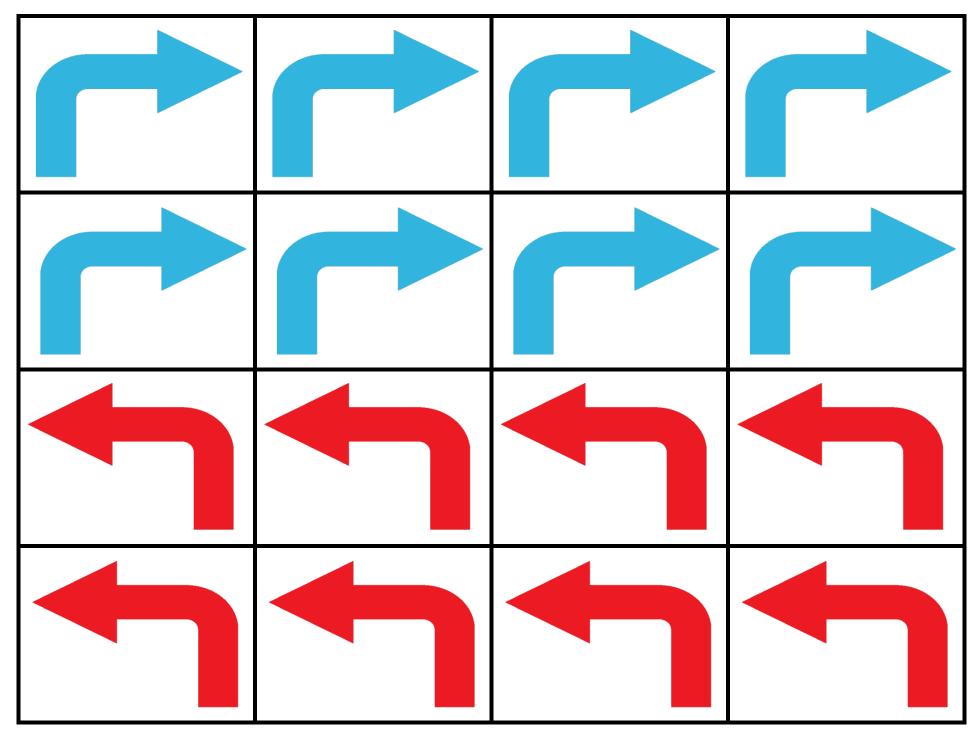
QUICK STEM

Coding is its own language. For programmers, it's like learning a new language when they write code for a new program. An algorithm is a series of actions that are strung together to solve a problem or tell something what it should do. Our printable algorithm coding game is perfect for learning how these actions string together to create a program through hands-on play!

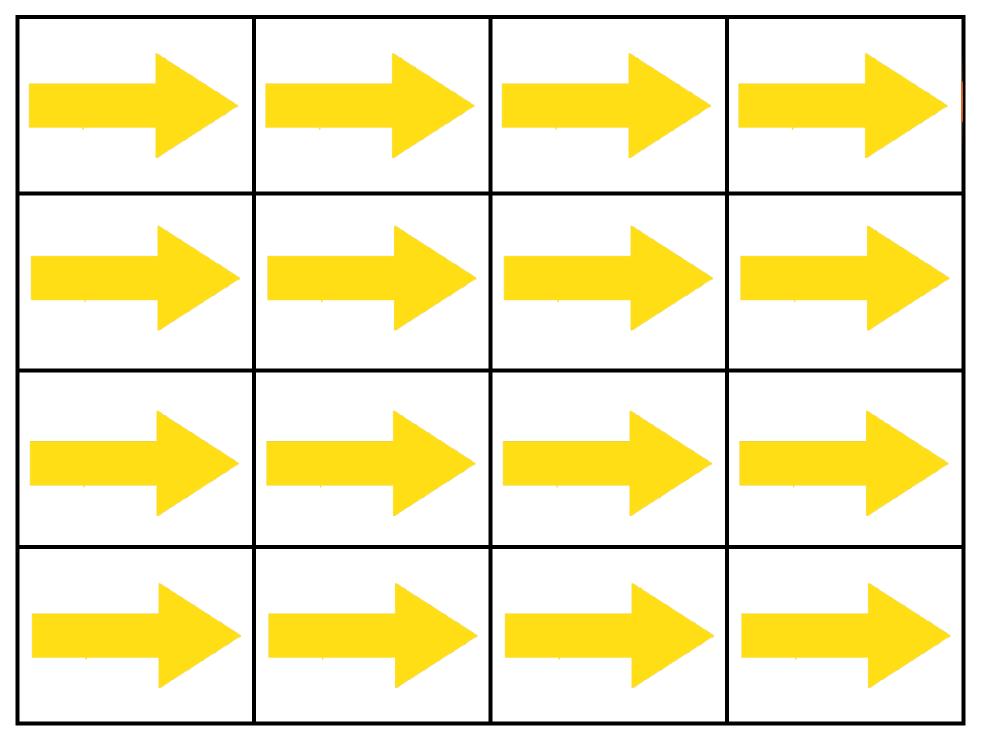


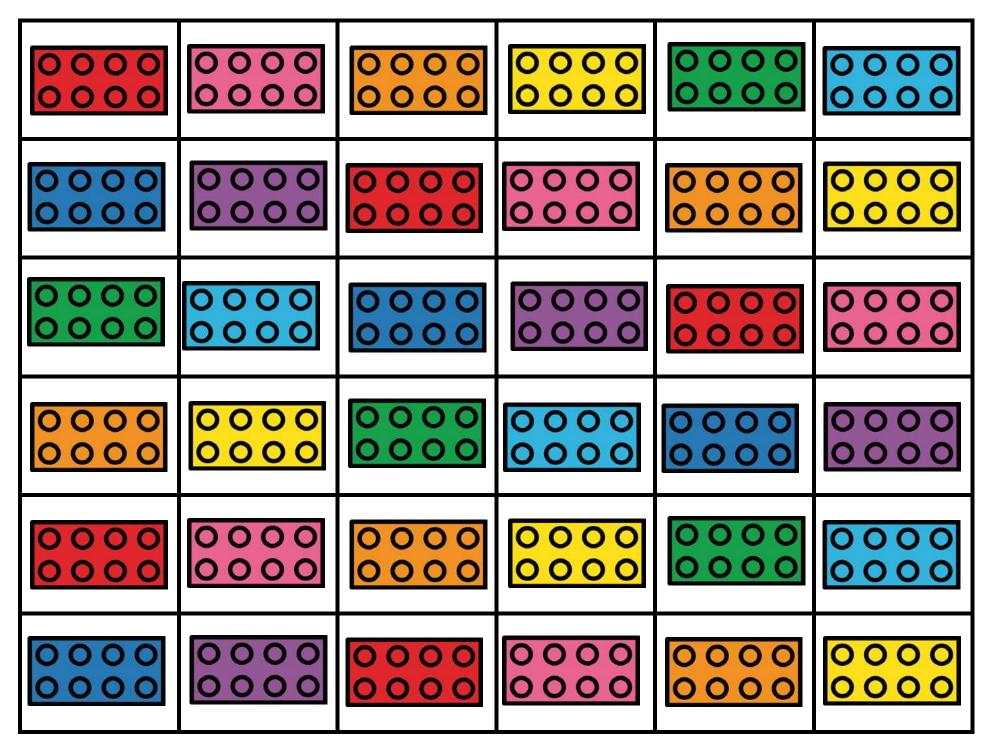


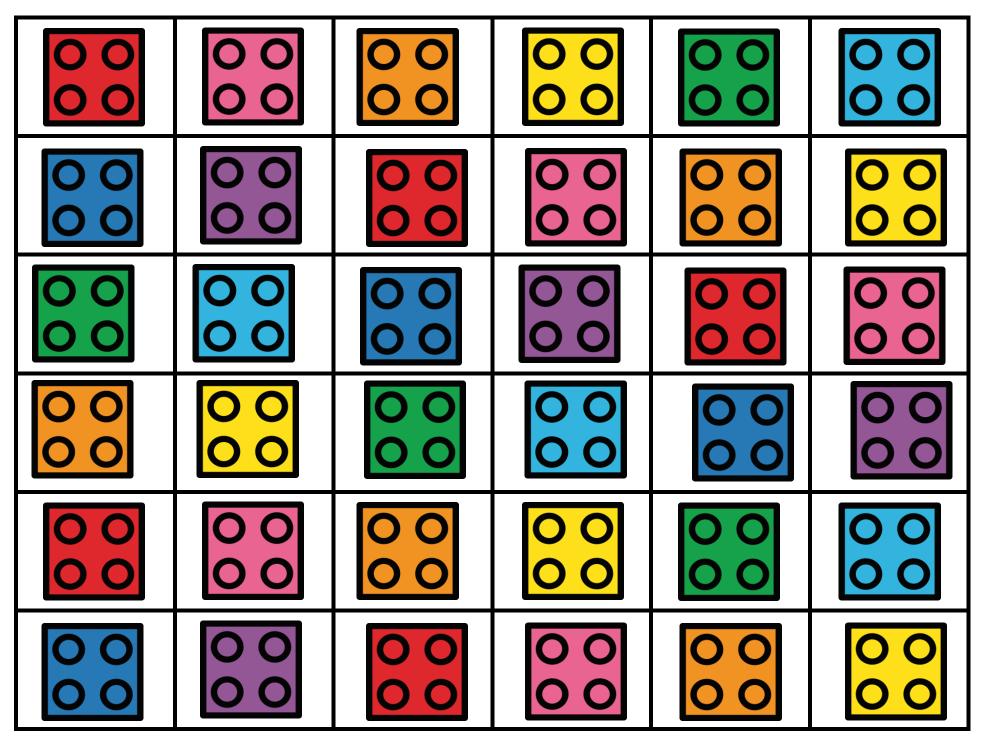


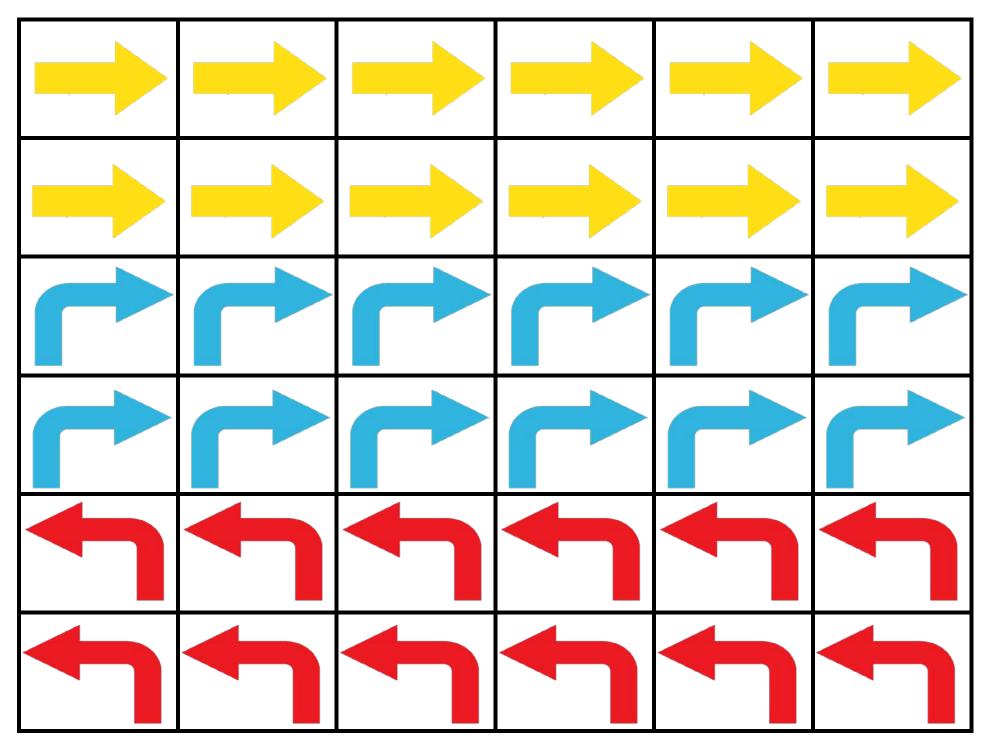


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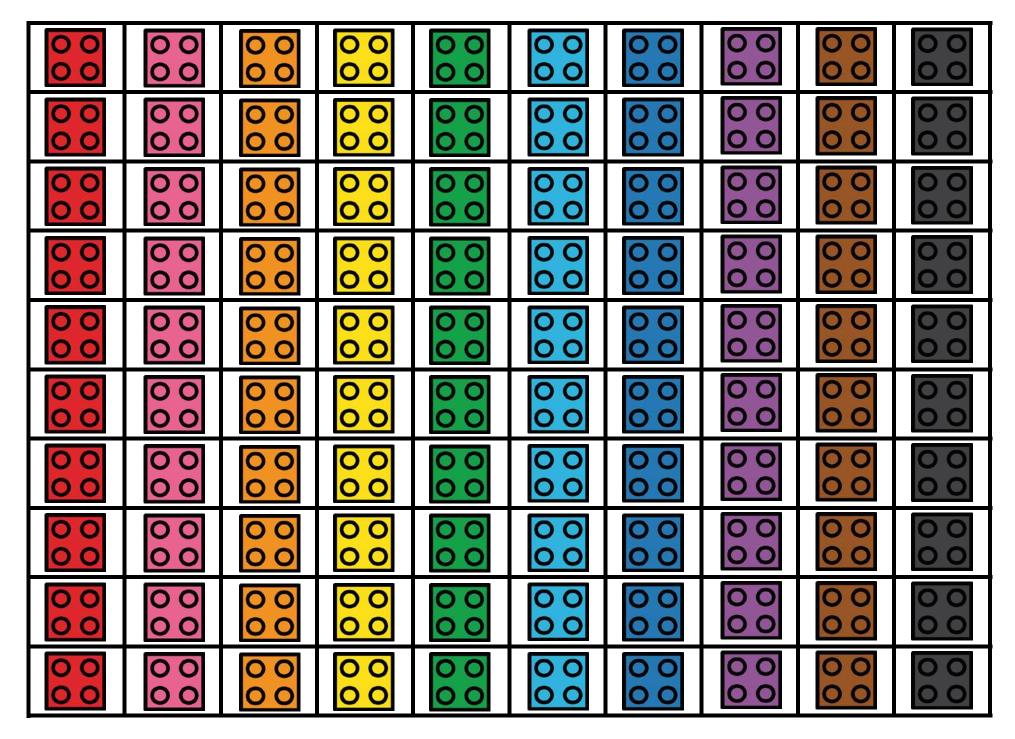


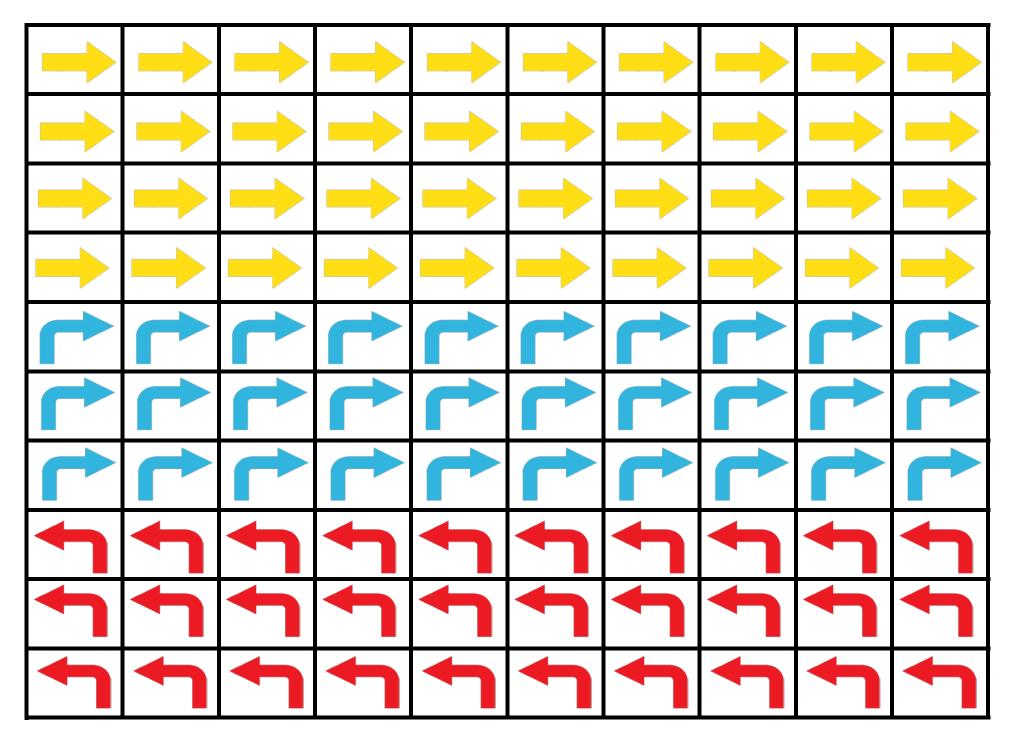






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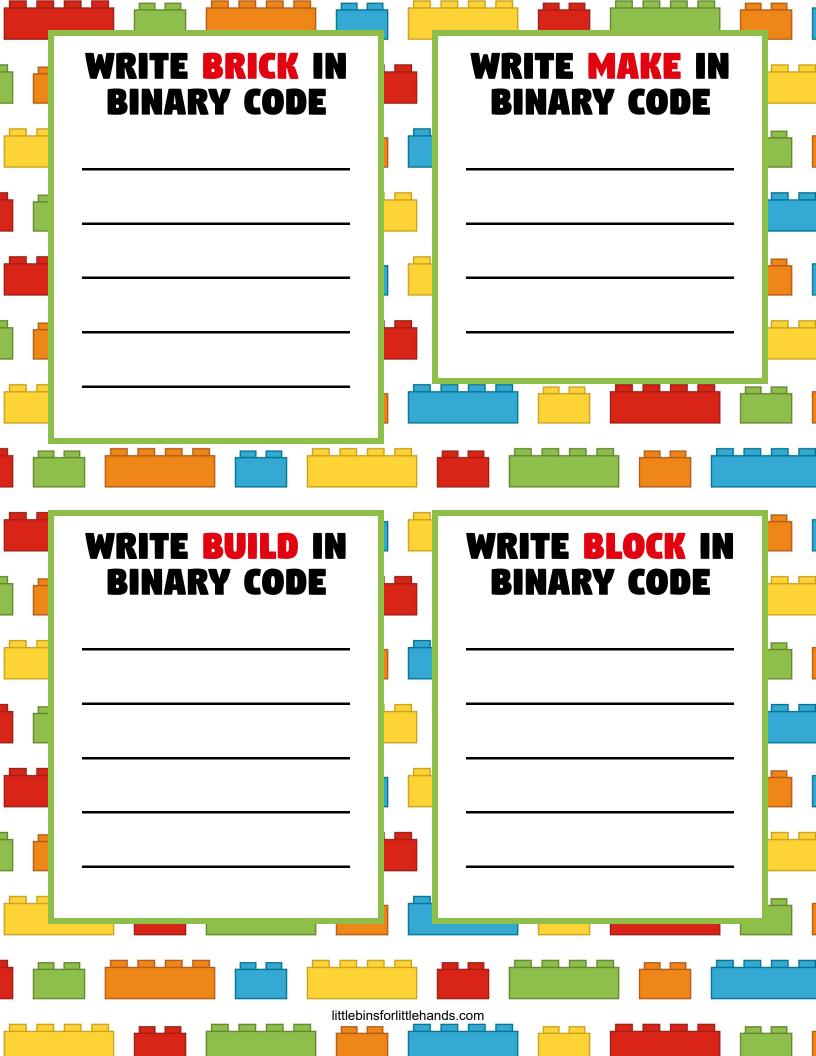


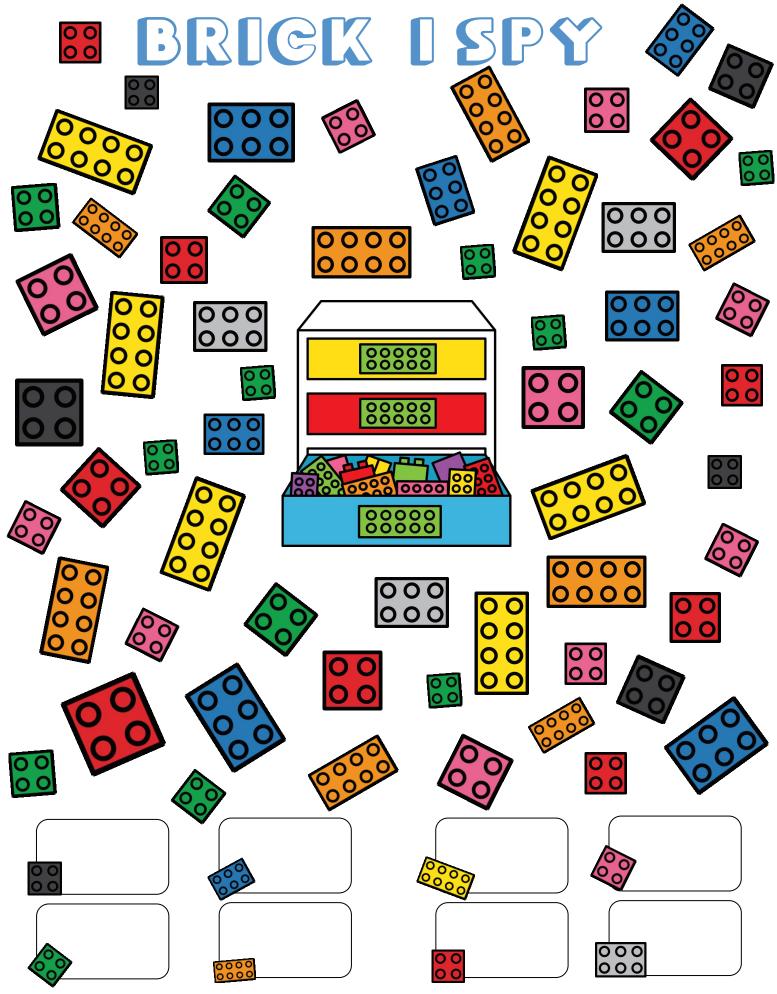




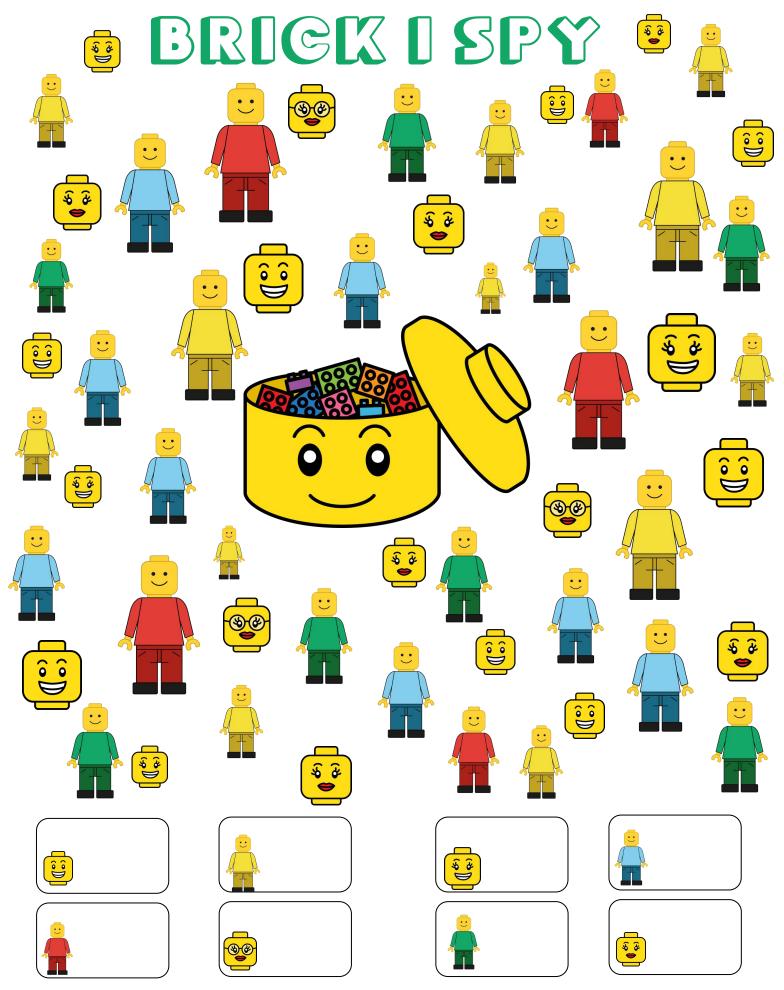
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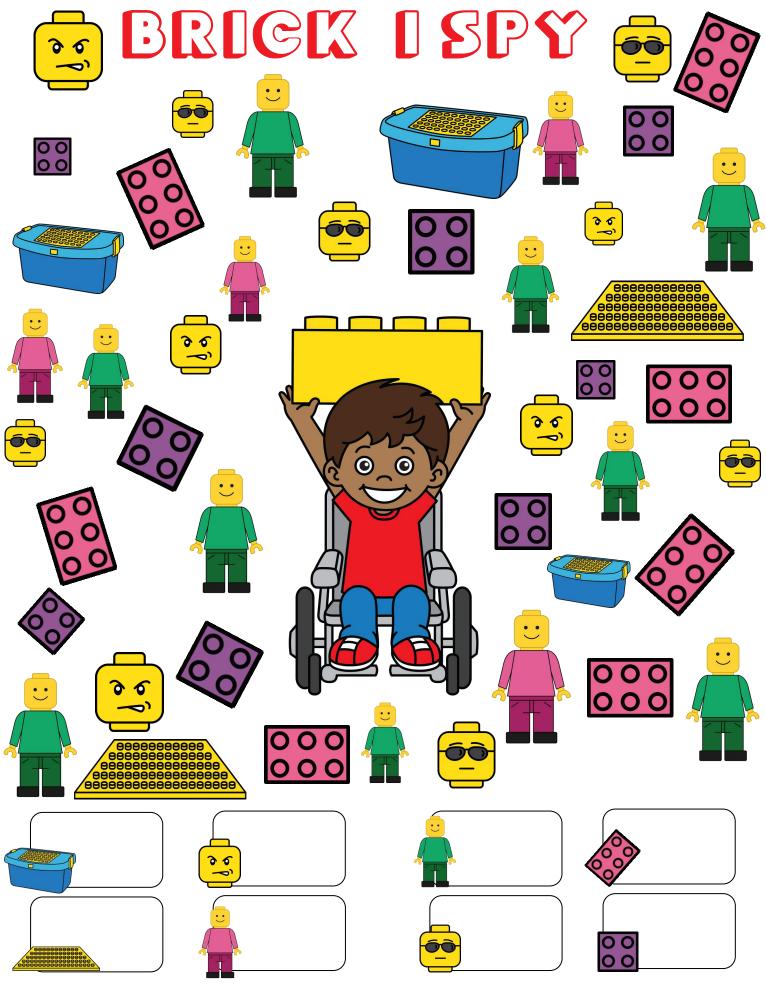




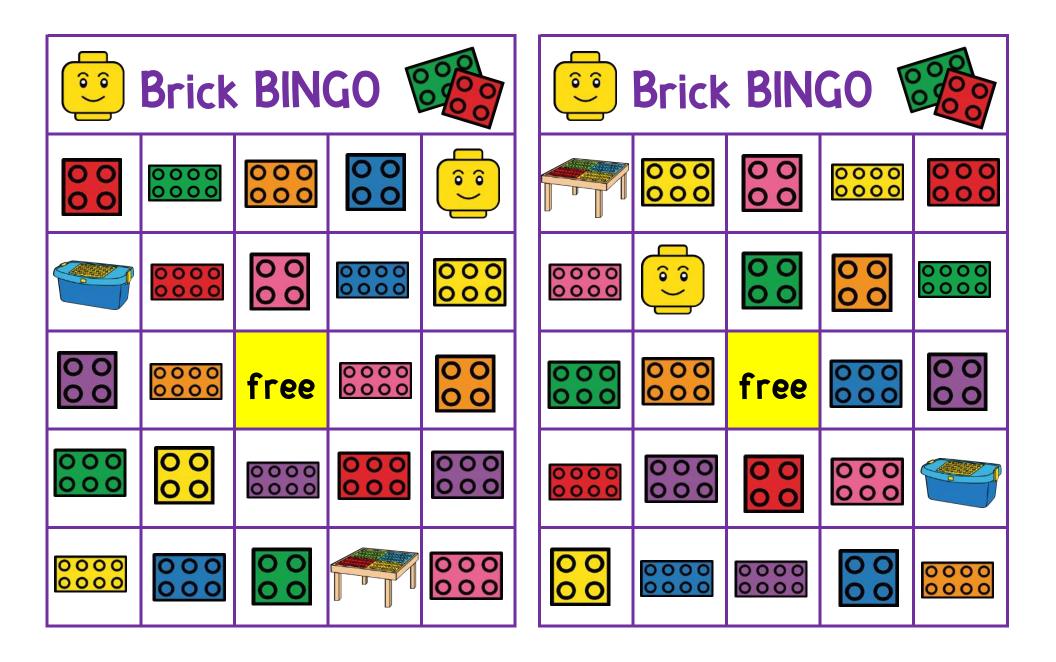
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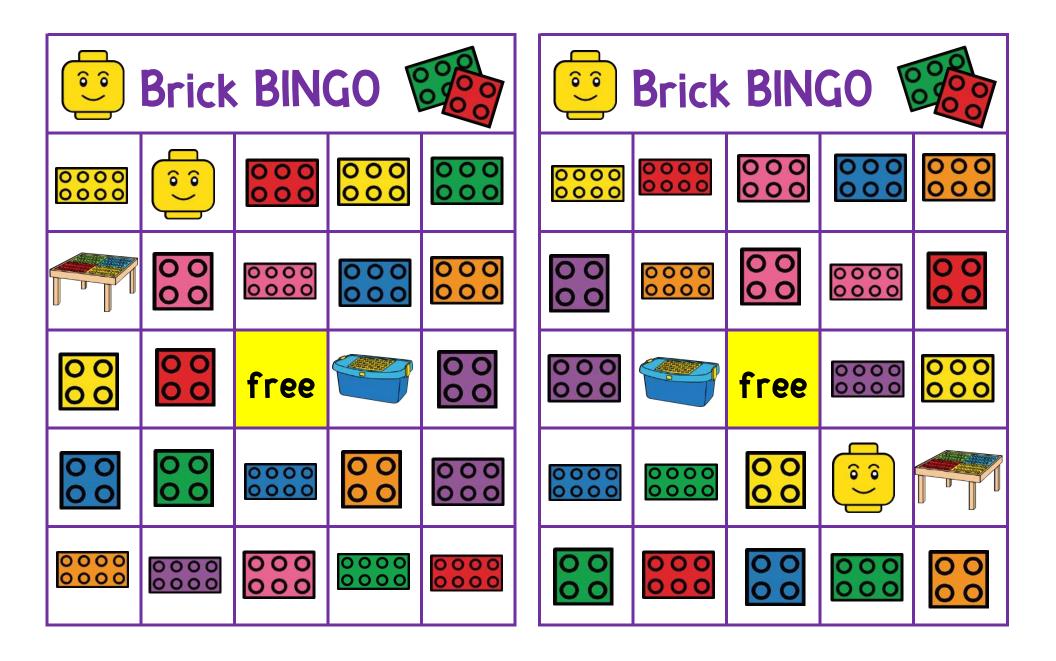


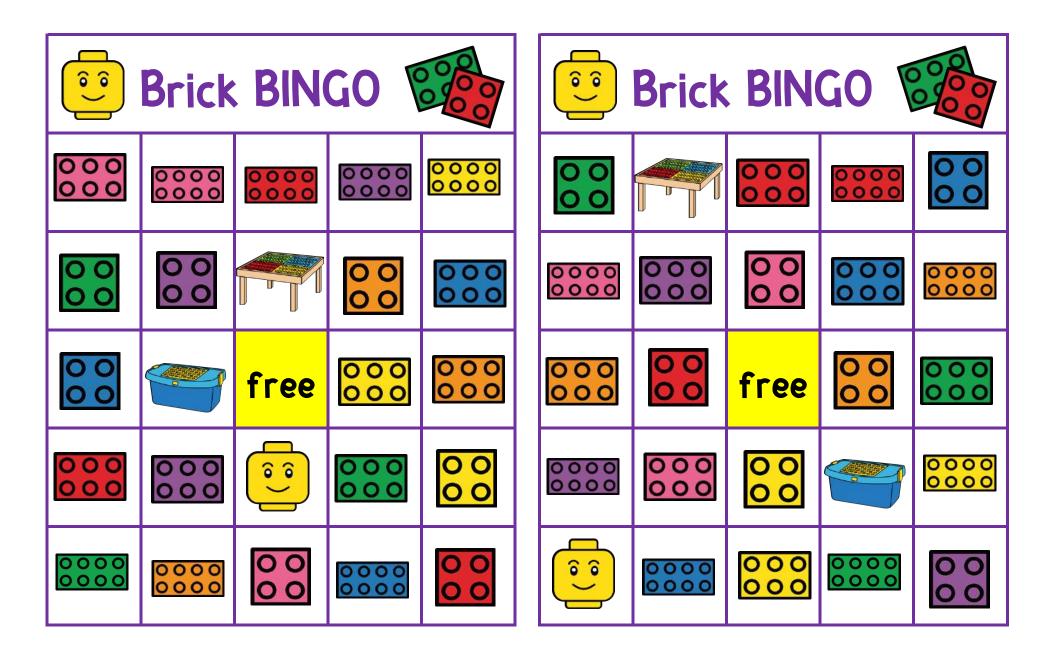
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BRICK STEM Challenges 8 **Engineer's** Notebook You can use this notebook for all the Sprint time STEM activities found in the pack.

BRICK STEM CHALLERCE SUPPLY LIST

For this STEM challenge you will only need a few supplies. You'll need a wide variety of LEGO[®] and Duplo[®] Bricks.

> LEGO® Bricks Duplo® Bricks Brick plates Brick wheels Brick gears

Bowls Balloons

String

Rubber bands

Water



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BUILD A TOWER

Challenge: Using only bricks build a free-standing tower that is as tall as you are.

BUILD A CAR

Challenge: Build a car that moves with a force such as wind or a balloon or rubber band.

BUILD A BRIDCE

Challenge: Build a bridge that spans a 12" wide gap.

CAN YOU SINK A BRICK?

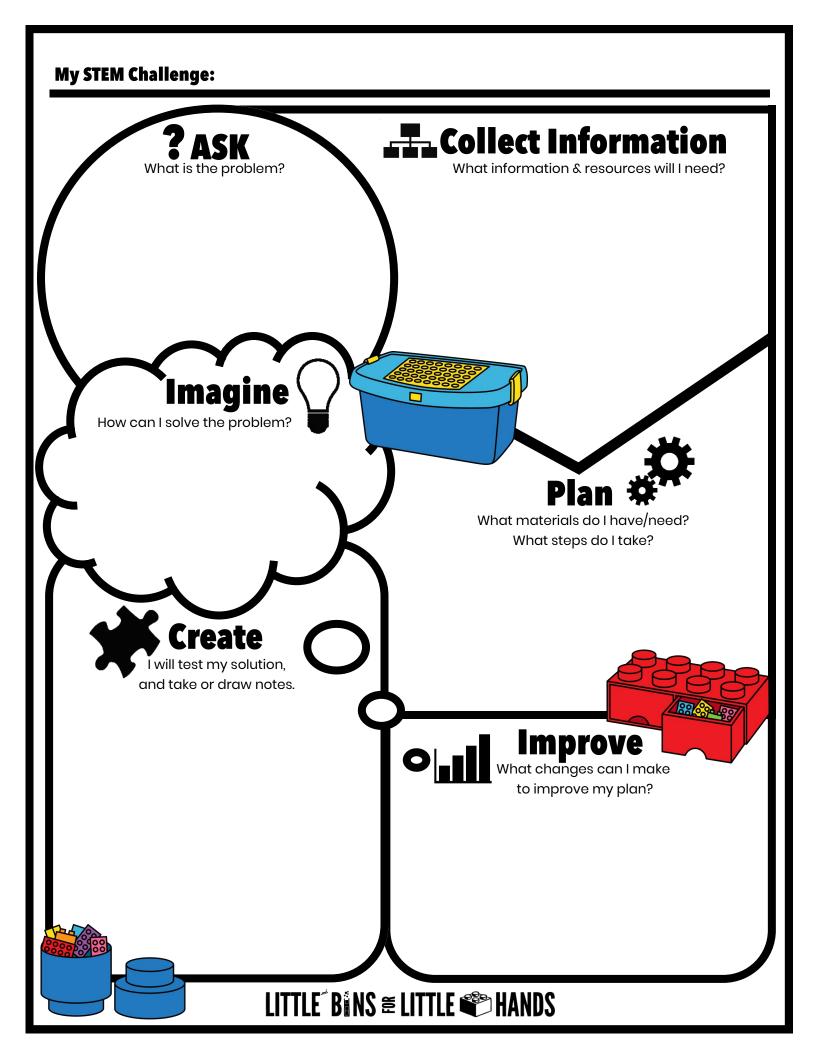
Challenge: Using a bowl of water, bricks, and other objects, determine what it would take to sink a brick.

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DESIGN A FLOOR PLAN

Use bricks to create a floor plan of your bedroom. Start by using the sample brick plate below to plot and diagram your layout. Then build your model using bricks.

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LECO® MATH CHALLENCE CARDS

Cut out cards and laminate. Pack in a bag with bricks.

FIND 3 BLUE BRICKS	FIND 4 ORANGE BRICKS			
ADD 2 GREEN BRICKS	ADD 1 BLUE BRICKS			
How many bricks do you have?	How many bricks do you have?			
FIND 6 RED BRICKS	FIND 3 ORANGE BRICKS			
ADD 5 BLUE BRICKS	ADD 7 GREEN BRICKS			
How many bricks do you have?	How many bricks do you have?			
FIND 2 RED BRICKS	FIND 9 YELLOW BRICKS			
ADD 4 GREEN BRICKS	ADD 4 ORANGE BRICKS			
How many bricks do you have?	How many bricks do you have?			
ADD 4 GREEN BRICKS	ADD 4 ORANGE BRICKS			

LECO® MATH CHALLENCE CARDS

Cut out cards and laminate. Pack in a bag with bricks.

FIND 4 BLUE BRICKS	FIND 7 ORANGE BRICKS			
ADD 1 GREEN BRICKS	ADD 3 BLUE BRICKS			
How many bricks do you have?	How many bricks do you have?			
FIND 13 RED BRICKS	FIND 8 ORANGE BRICKS			
ADD 6 BLUE BRICKS	ADD 12 GREEN BRICKS			
How many bricks do you have?	How many bricks do you have?			
FIND 11 RED BRICKS	FIND 8 YELLOW BRICKS			
ADD 6 GREEN BRICKS	ADD 2 ORANGE BRICKS			
How many bricks do you have?	How many bricks do you have?			
ADD 6 GREEN BRICKS	ADD 2 ORANGE BRICKS			

LEGO® MATH CHALLENGE CARDS

Cut out cards and laminate. Pack in a bag with bricks.

START WITH 15 RED BRICKS ADD 4 BLUE BRICKS TAKE AWAY 6 RED BRICKS How many bricks do you have?				
START WITH 10 RED BRICKS ADD 5 BLUE BRICKS TAKE AWAY 1 RED BRICK How many bricks do you have?				
START WITH 10 RED BRICKS ADD 5 BLUE BRICKS TAKE AWAY 1 RED BRICK How many bricks do you have?				
START WITH 10 RED BRICKS ADD 5 BLUE BRICKS TAKE AWAY 1 RED BRICK How many bricks do you have?				

LEGO® MATH CHALLENGE CARDS

Cut out cards and laminate. Pack in a bag with bricks.

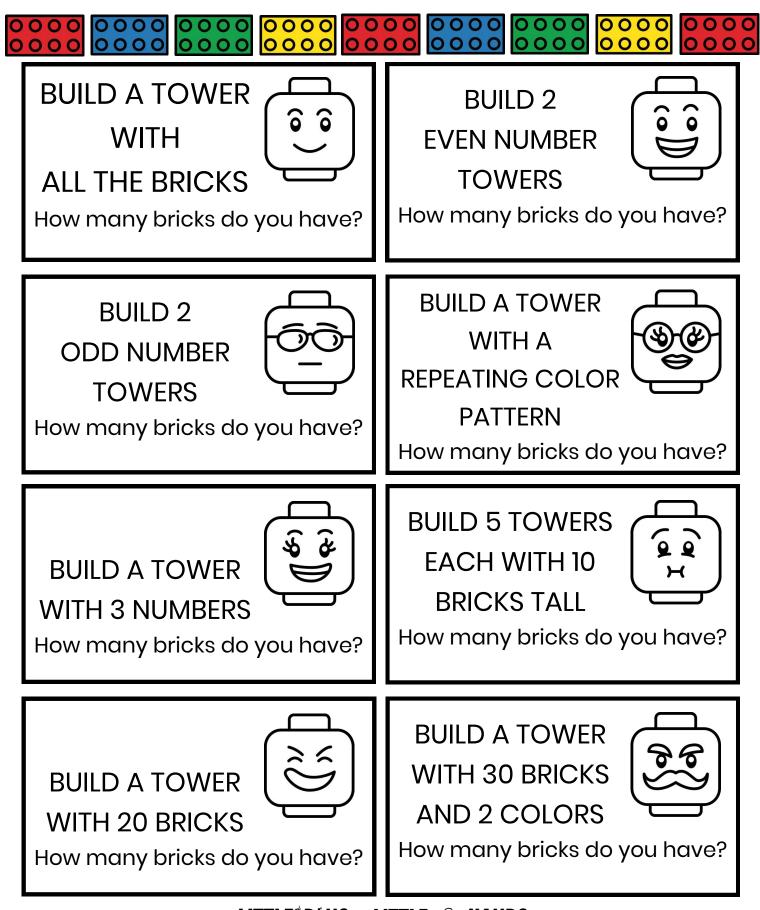
START WITH 10 BRICKS	START WITH 15 BRICKS			
ADD 10 BRICKS	ADD 1 BRICK			
TAKE AWAY 5 BRICKs	TAKE AWAY 7 BRICKS			
How many bricks do you have?	How many bricks do you have?			
START WITH 15 BRICKS	START WITH 9 BRICKS			
ADD 4 BRICKS	ADD 10 BRICKS			
TAKE AWAY 6 BRICKS	TAKE AWAY 3 BRICKS			
How many bricks do you have?	How many bricks do you have?			
START WITH 10 BRICKS	START WITH 8 BRICKS			
ADD 8 BRICKS	ADD 12 BRICKS			
TAKE AWAY 1 BRICK	TAKE AWAY 4 BRICKS			
How many bricks do you have?	How many bricks do you have?			
START WITH 12 BRICKS	START WITH 18 BRICKS			
ADD 4 BRICKS	ADD 2 BRICKS			
TAKE AWAY 2 BRICKS	TAKE AWAY 10 BRICKS			
How many bricks do you have?	How many bricks do you have?			
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LEGO® MATH CHALLENGE CARDS

Cut out cards and laminate. Pack in a bag with bricks.

START WITH 10 BRICKS	START WITH 16 BRICKS			
TAKE AWAY 2 BRICKS	TAKE AWAY 6 BRICK			
TAKE AWAY 5 BRICKS	TAKE AWAY 8 BRICKS			
How many bricks do you have?	How many bricks do you have?			
START WITH 15 BRICKS	START WITH 9 BRICKS			
TAKE AWAY 4 BRICKS	TAKE AWAY 1 BRICK			
TAKE AWAY 7 BRICKS	TAKE AWAY 2 BRICKS			
How many bricks do you have?	How many bricks do you have?			
START WITH 10 BRICKS	START WITH 14 BRICKS			
TAKE AWAY 8 BRICKS	TAKE AWAY 9 BRICKS			
TAKE AWAY 2 BRICKS	TAKE AWAY 4 BRICKS			
How many bricks do you have?	How many bricks do you have?			
START WITH 20 BRICKS	START WITH 18 BRICKS			
TAKE AWAY 9 BRICKS	TAKE AWAY 2 BRICKS			
TAKE AWAY 3 BRICKS	TAKE AWAY 10 BRICKS			
How many bricks do you have?	How many bricks do you have?			

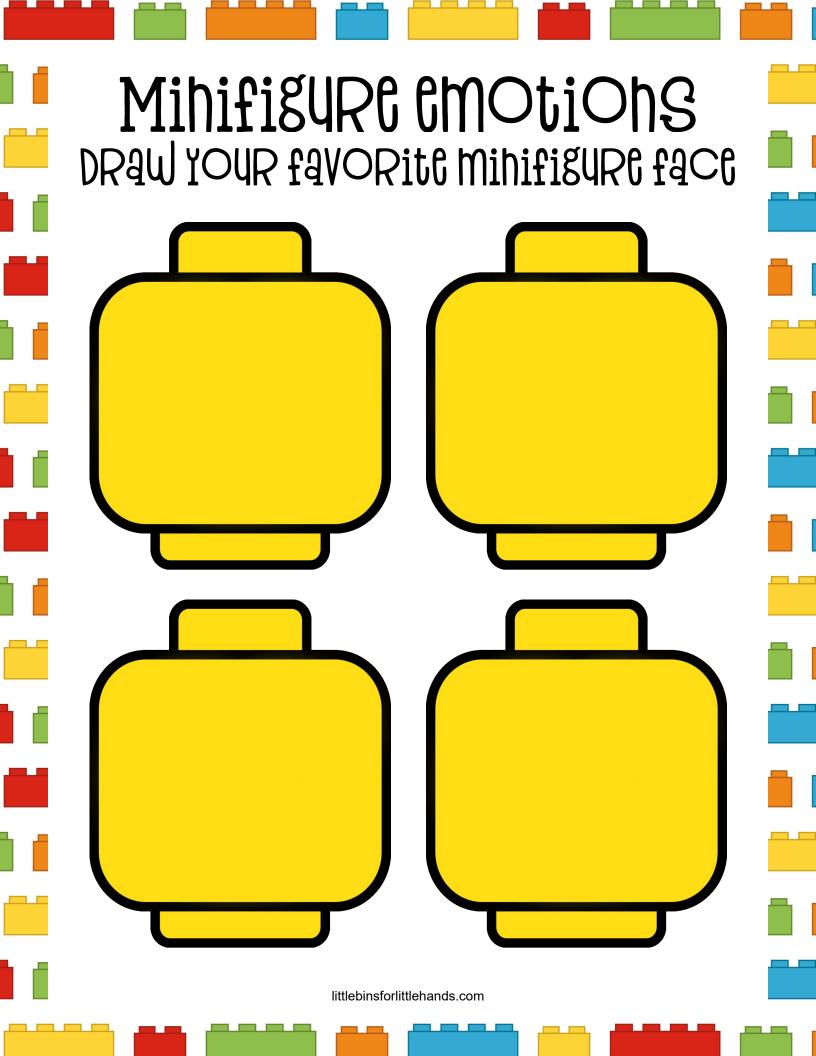
LEGO® MATH CHALLENGE CARDS Cut out cards and laminate. Pack in a bag with bricks.



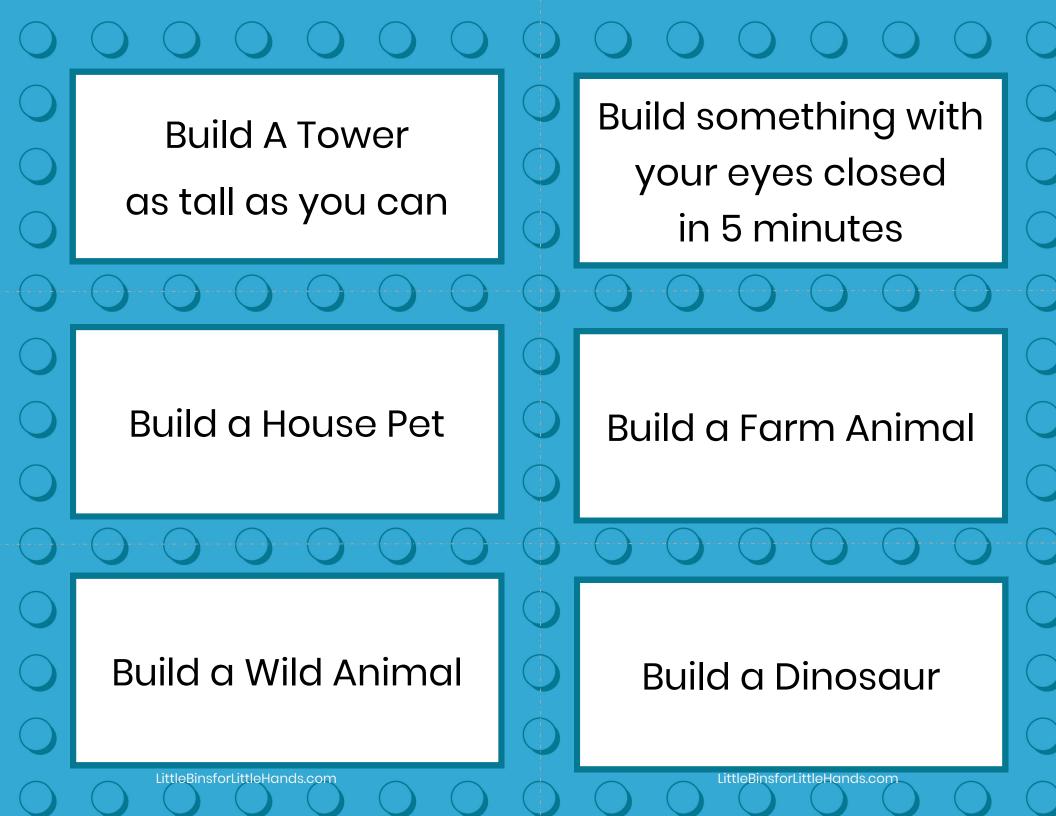
LECO® CHALLENCE CALENDAR

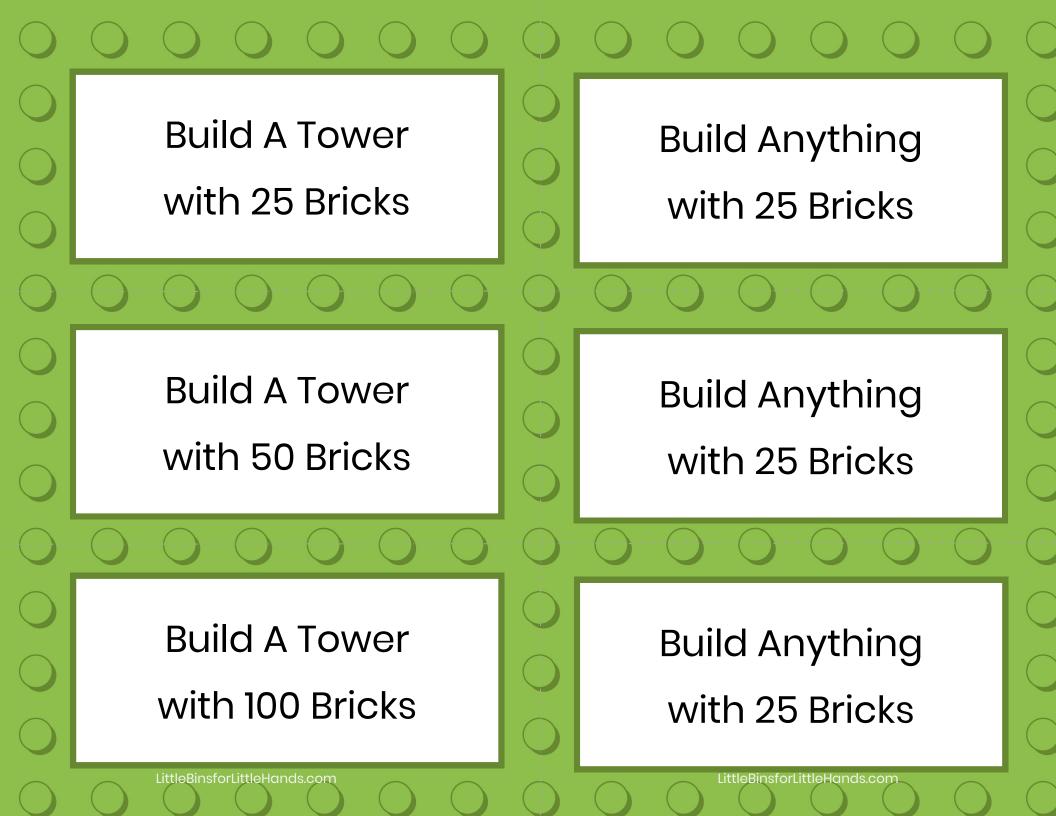
31 Days of Fun Ideas for Any Month!

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Build Your Name or Initials	Build a Person with Moving Legs and Arms	Build a Catapult	Build a Robot	Build a House that Opens	Build a Boat that Floats	Build a 100 Brick Tower
Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	Day 14
Build a Box with a Lid	Build a Small World Scene	Write a Comic Strip for a Minifigure	Build a Model of Your Room	Build a Simple Machine	Build a Bridge that Can Hold Something Heavy	Build a Favorite Character
Day 15	Day 16	Day 17	Day 18	Day 19	Day 20	Day 21
Make a Mosaic Using Flat Piec- es on Baseplate	Draw a Design Make it with LEGO Bricks	Build Something to go with A Favorite Book	Build a Swim- ming Pool for a Minifigure	Build with Eyes Closed for 5 Minutes	Build a Pyramid	Build a Marble Run
Day 22	Day 23	Day 24	Day 25	Day 26	Day 27	Day 28
Draw a Play Mat And A LEGO	Learn Paper Football and Build a Goal	Have a Minifig- ure Building Race	Build a Marble Maze	Try to Sink a Minifigure	Build a Zip Line	Make Your Own LEGO Skittles Game
Day 29	Day 30	Day 31				
Build a Para- chute for a Min- ifigure	Build a Car At- tach a Marker and Draw	Ask for a Bin of Soapy Water Wash LEGO!		LI	TTLE [®] BÉNS ㎝ LI	ITLE 🖤 HANDS



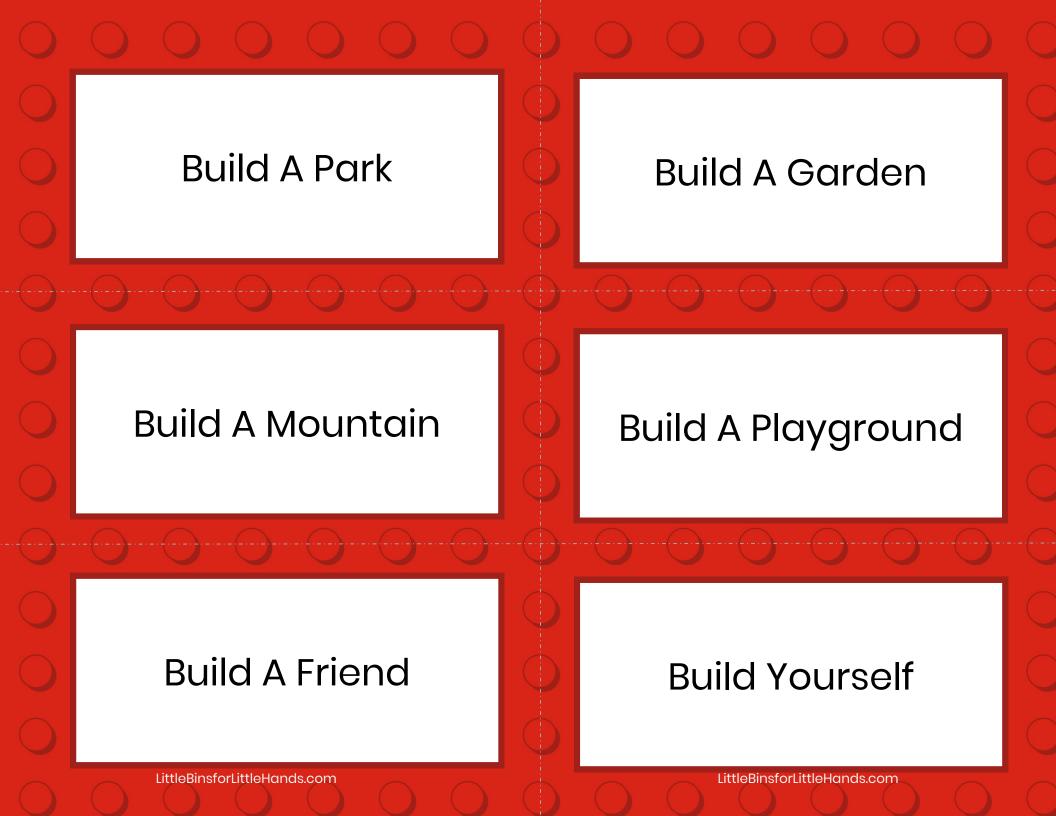


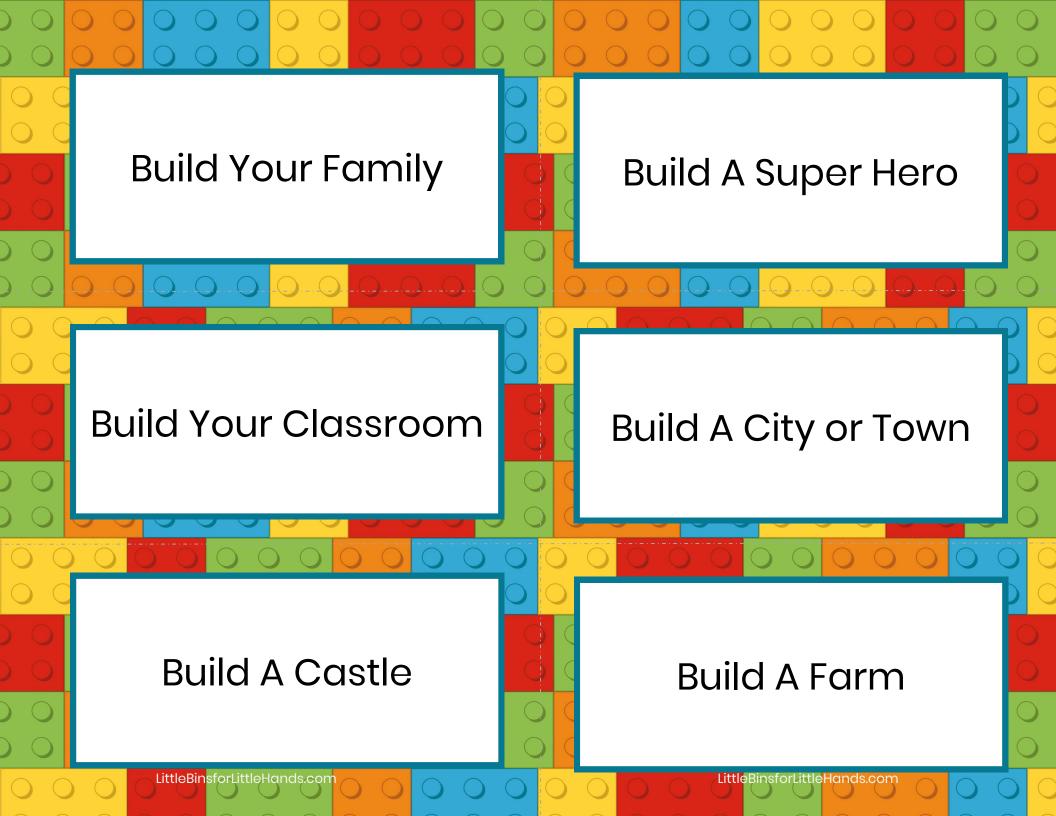




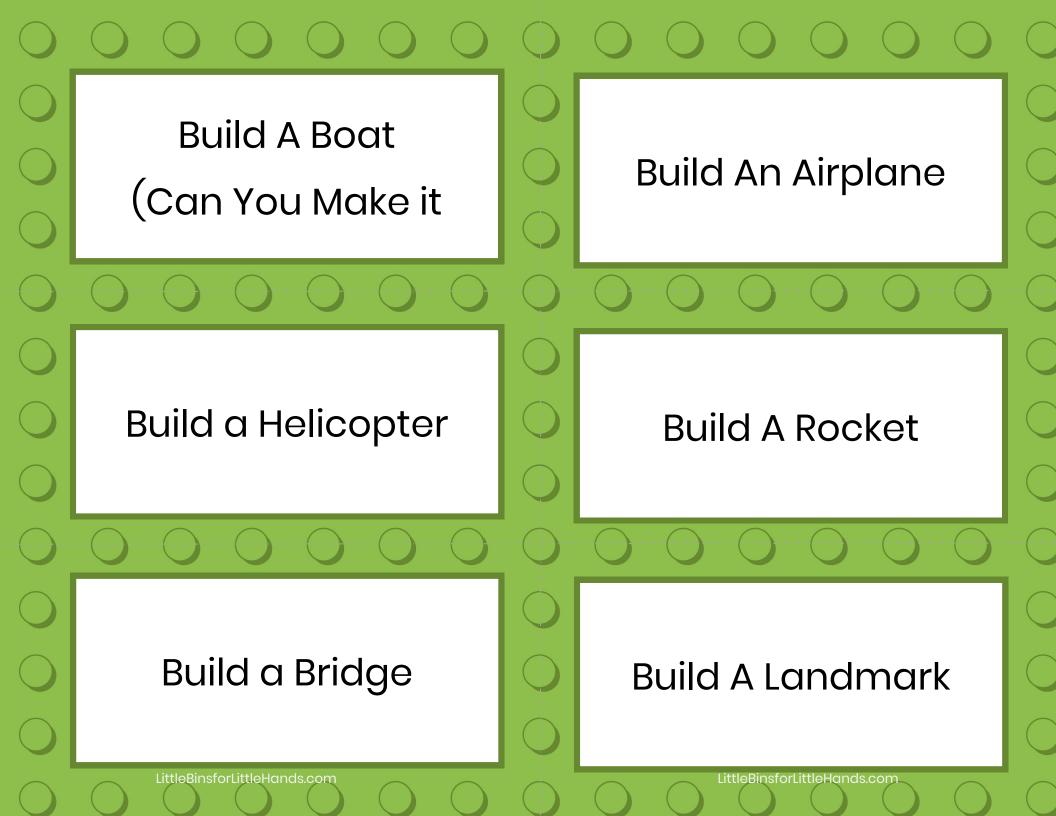


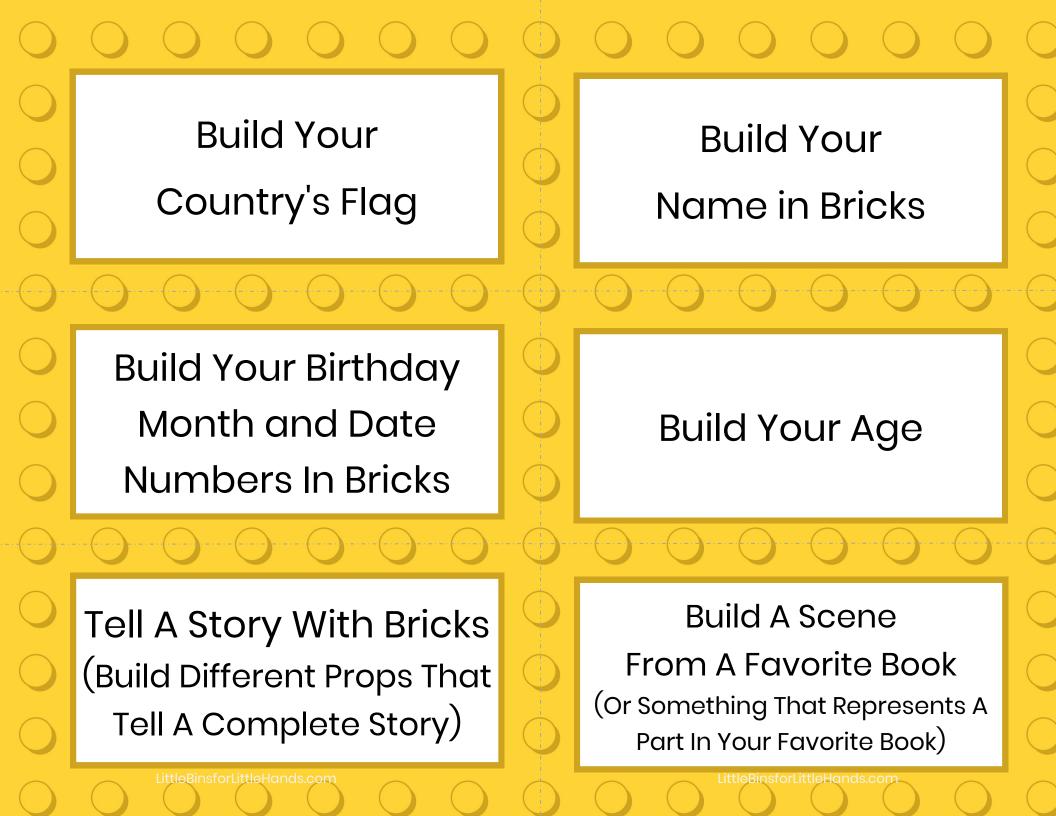














Build A Calendar (Use a Dry Erase Marker To Write In Numbers}

Build A Container To Hold Pencils Or Pens

Build Apples and Pumpkins Build a Jack O' Lantern, Ghost, or Halloween Idea

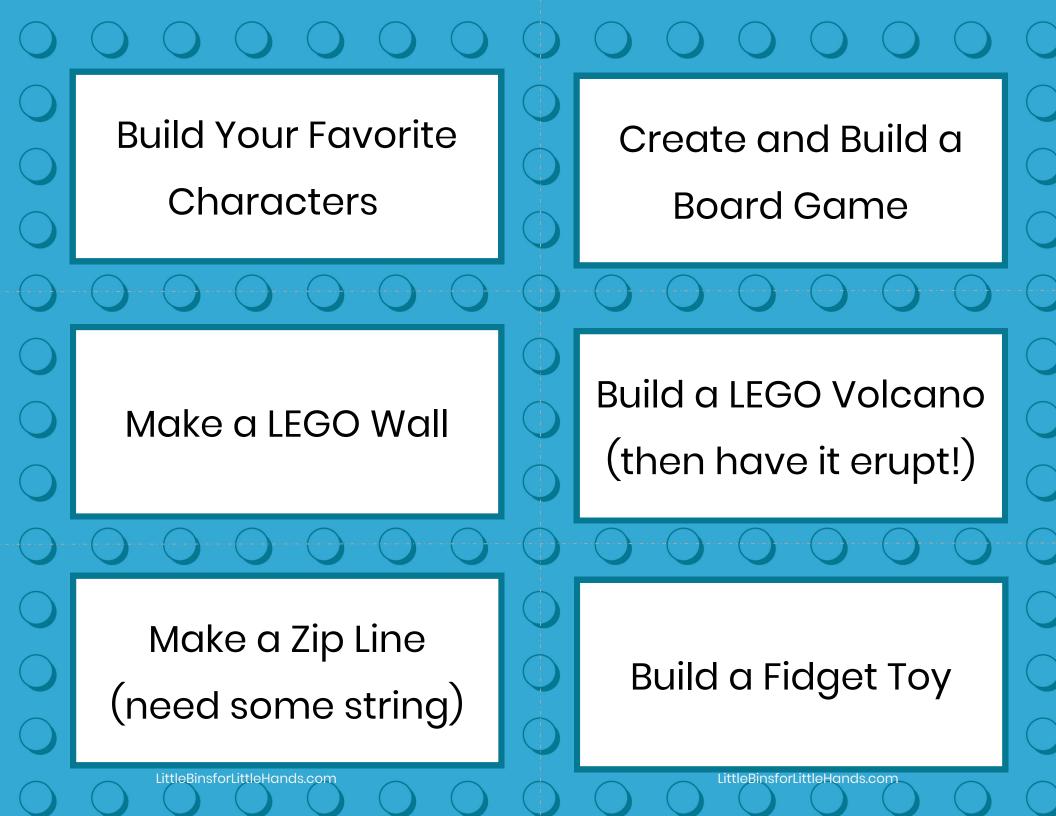
Build A Playing Card

Build a Holder for Card Games

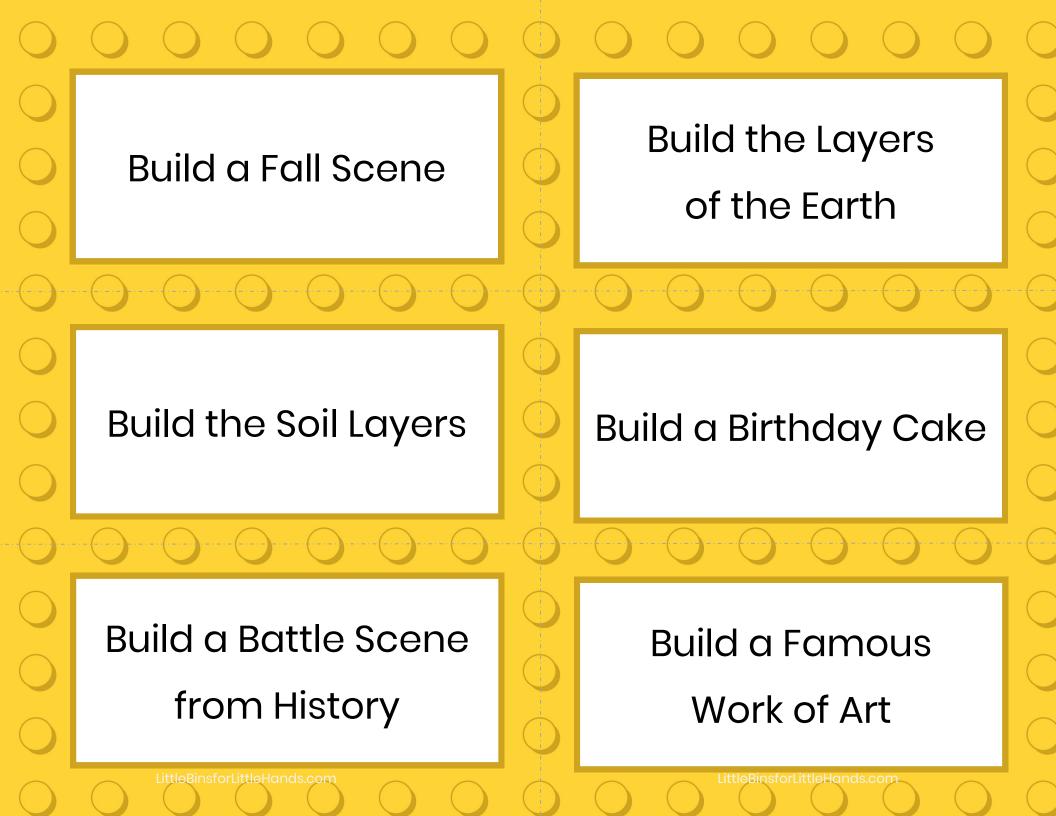
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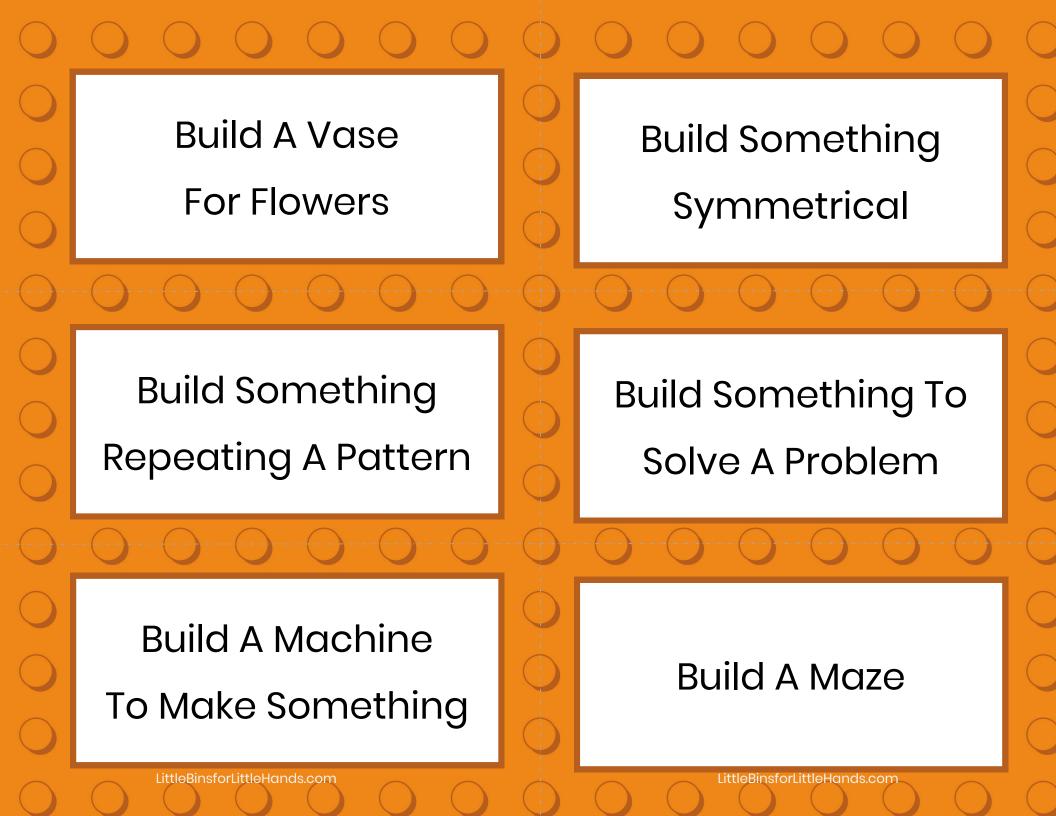
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Build A Robot

Build Something That Lights Up (Use a Battery Operated Tea Light)

Build a Tessellation Puzzle Idea

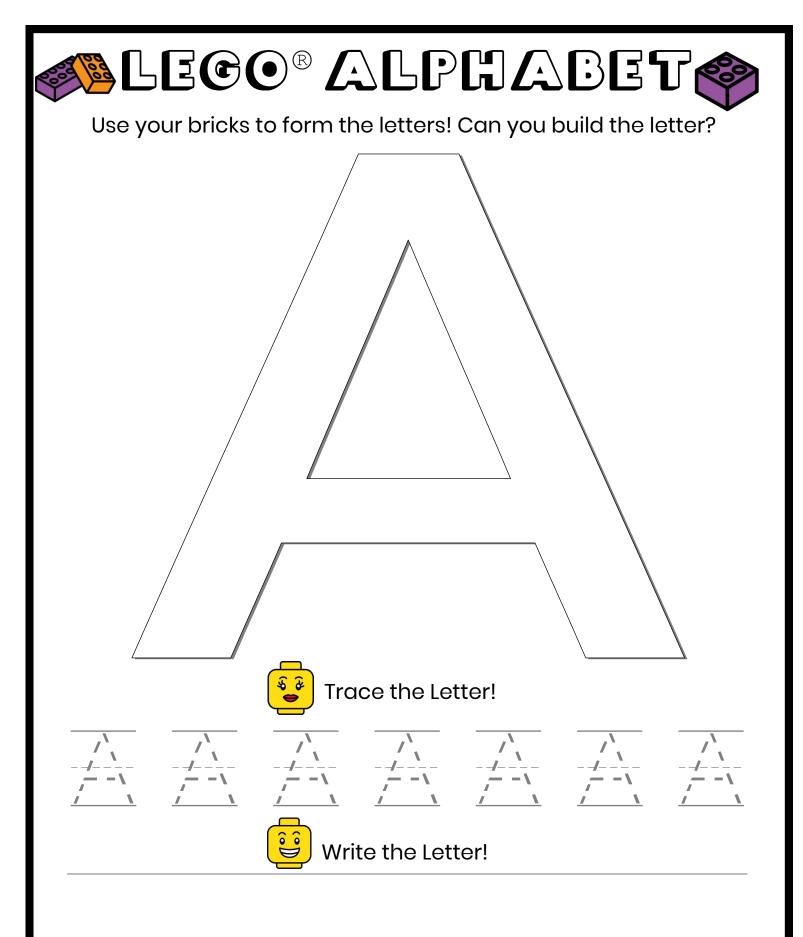
Build Creations for Shadow Drawings

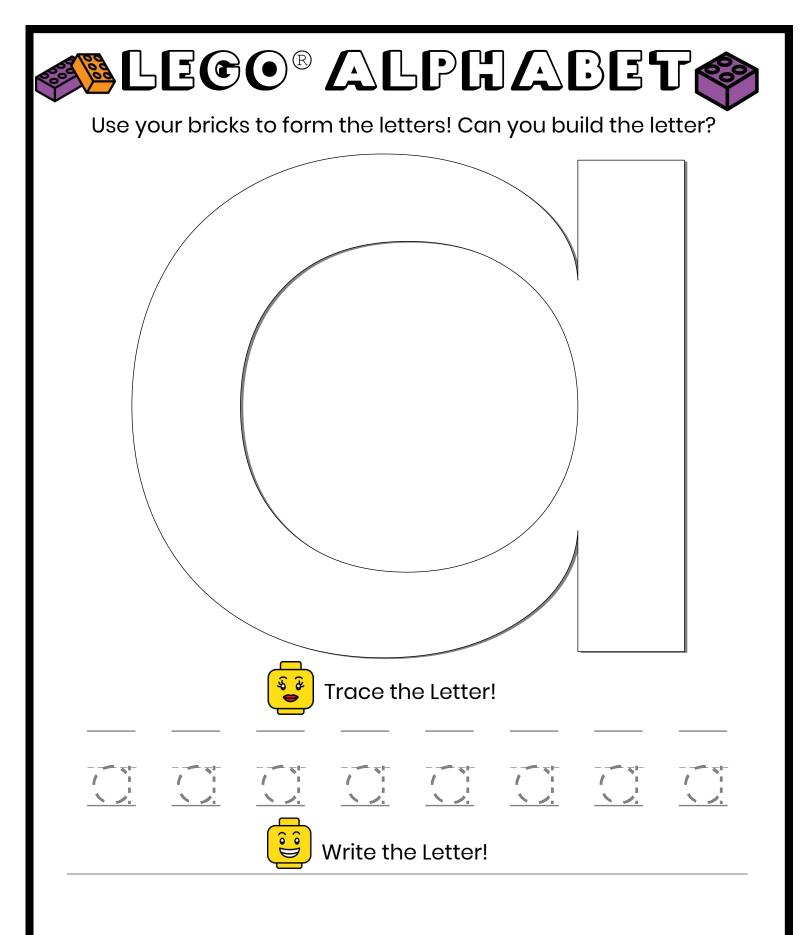
Build a Graph To Show Pi

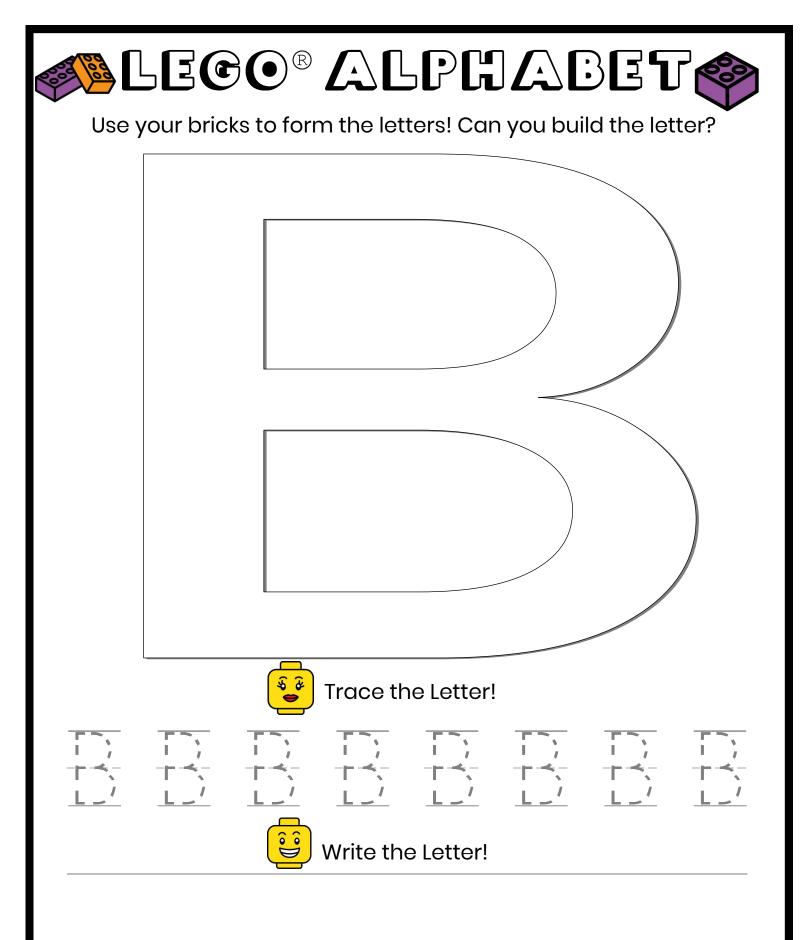
Use Bricks to make Sun Prints

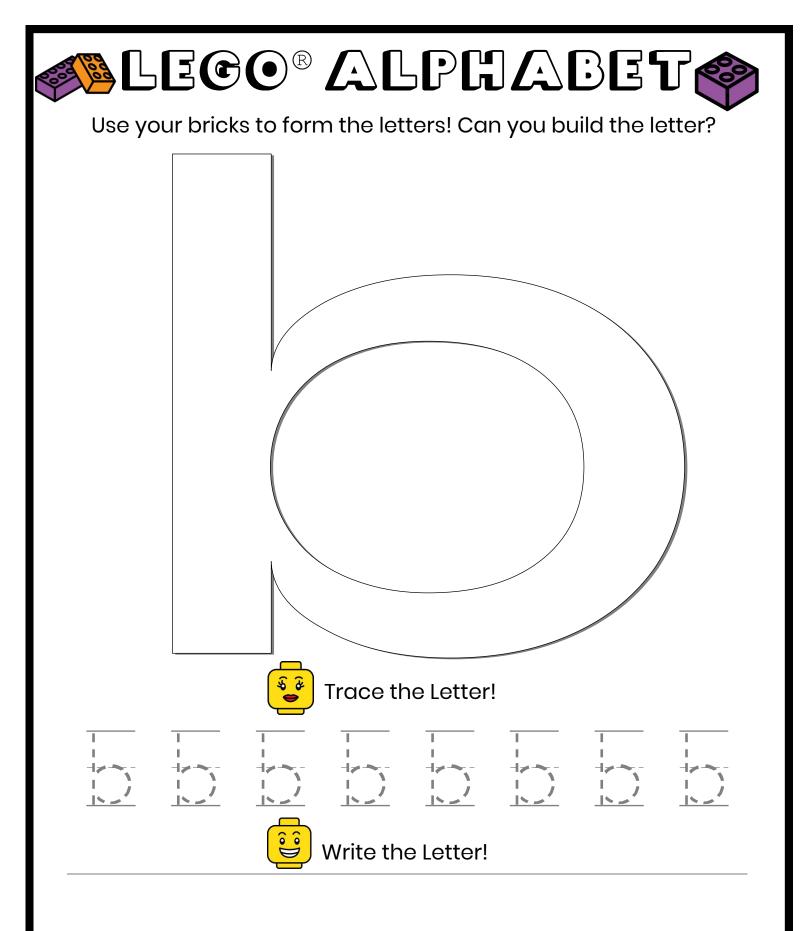
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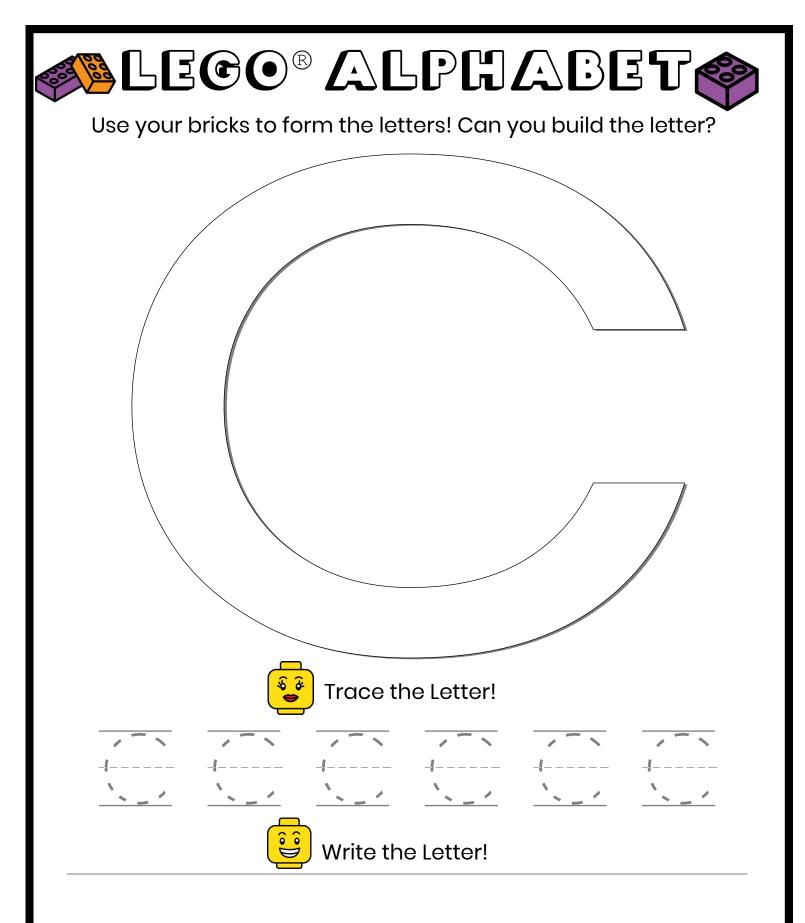


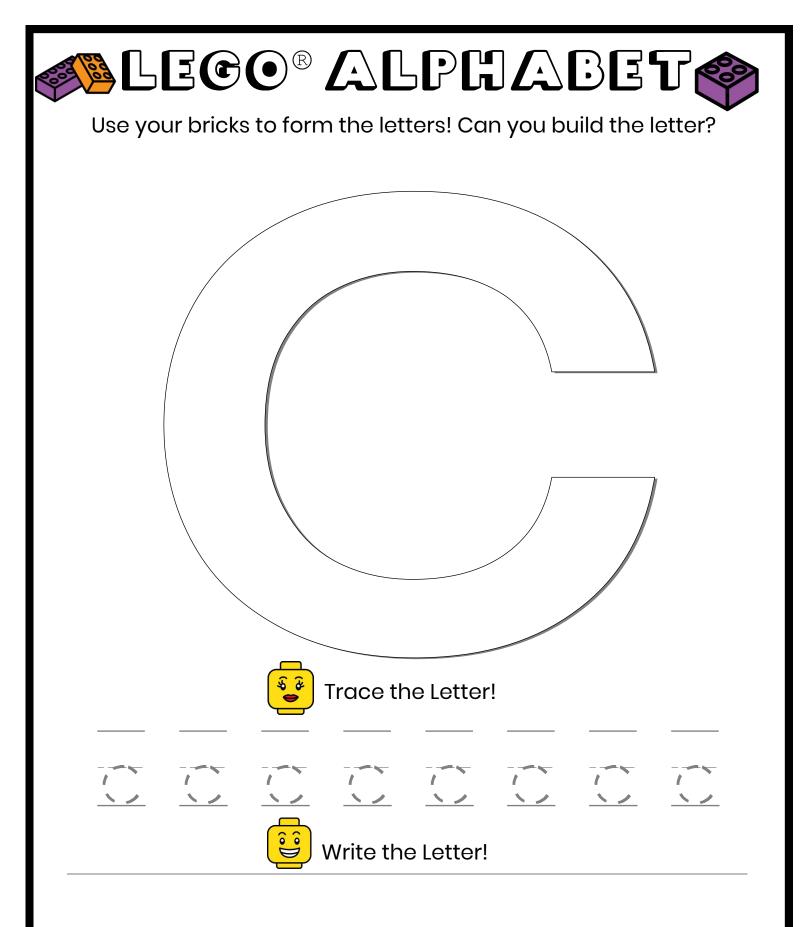


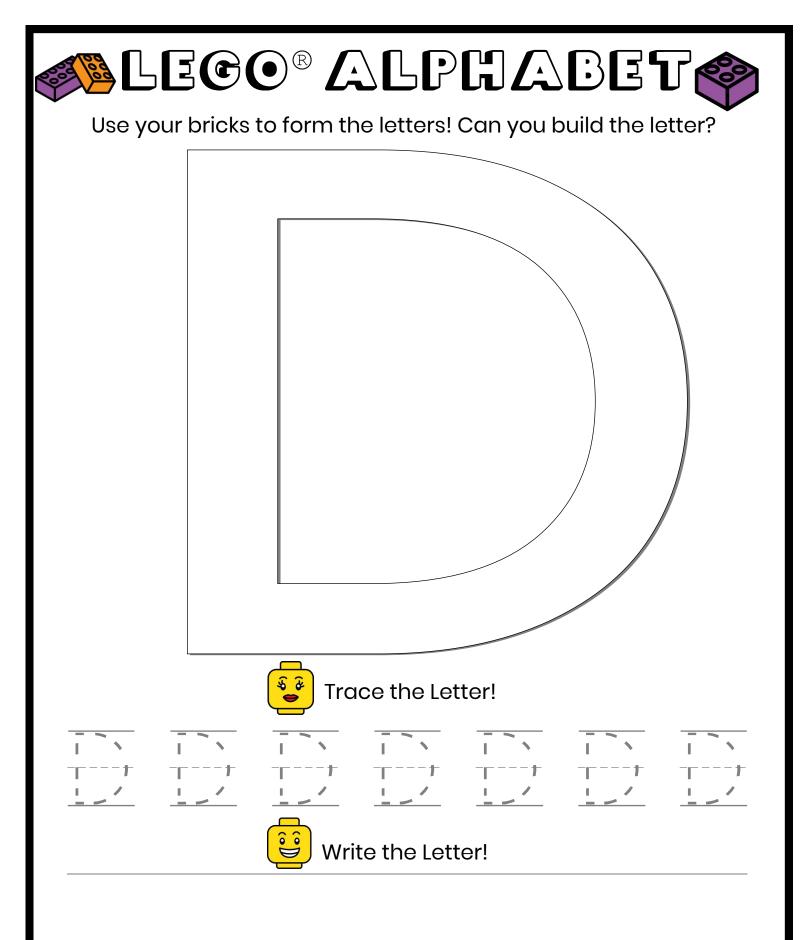


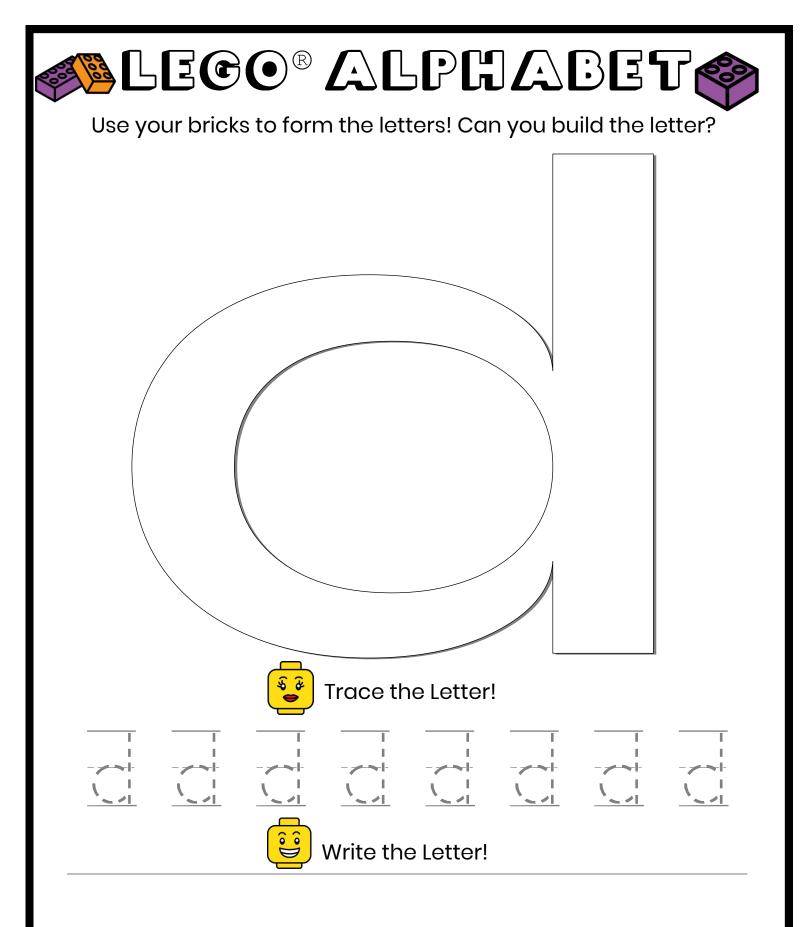


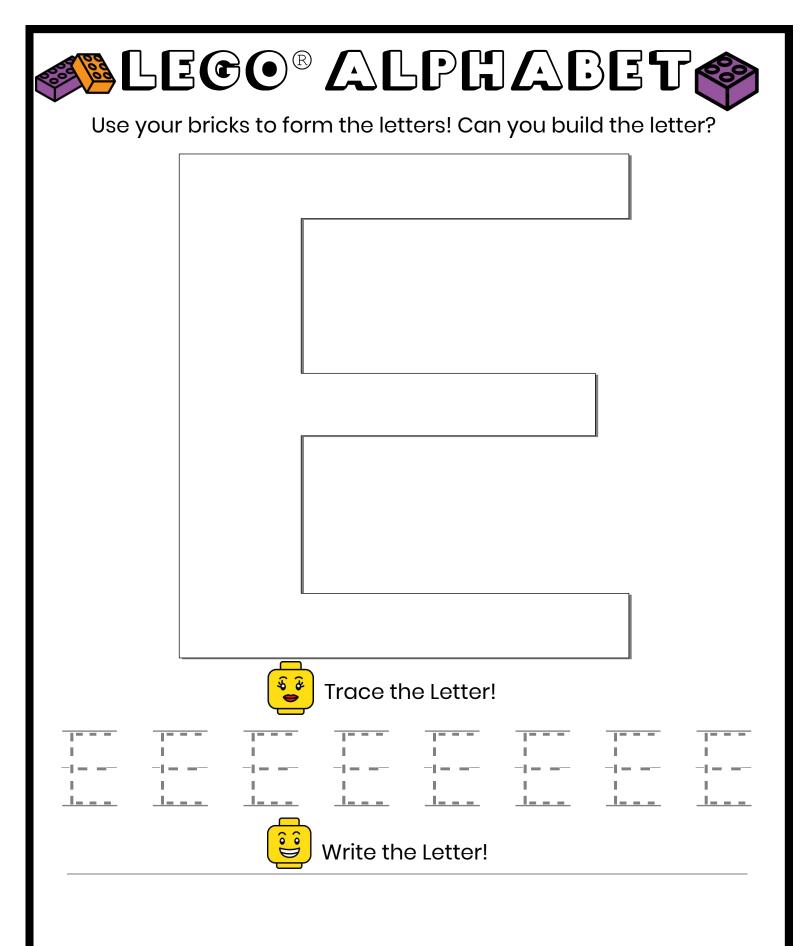
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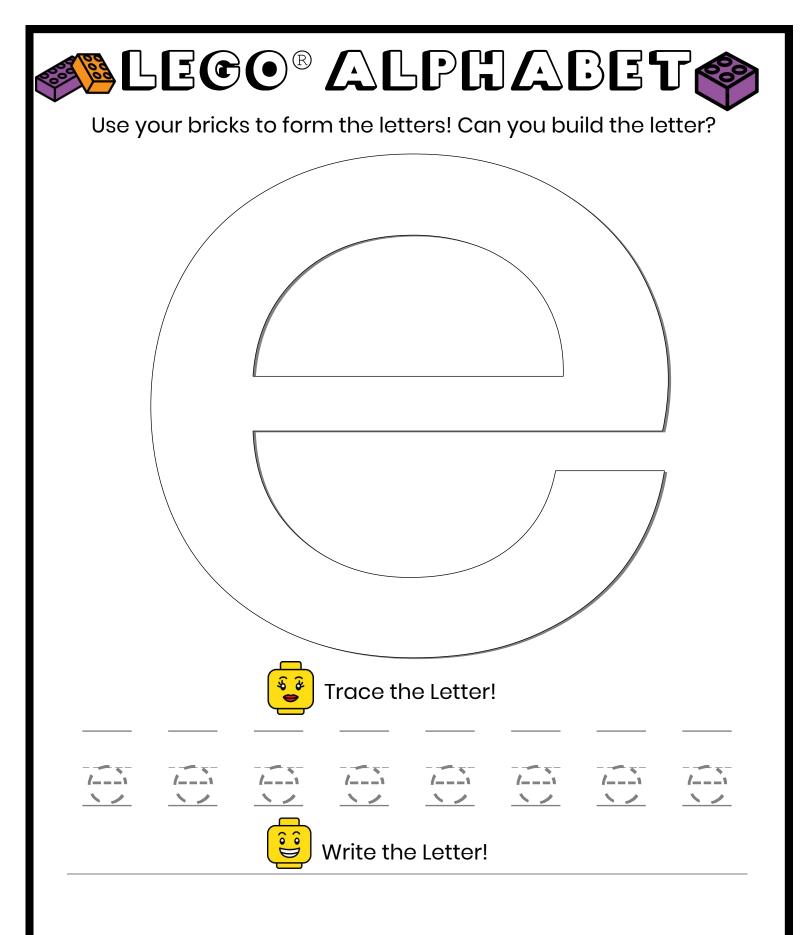


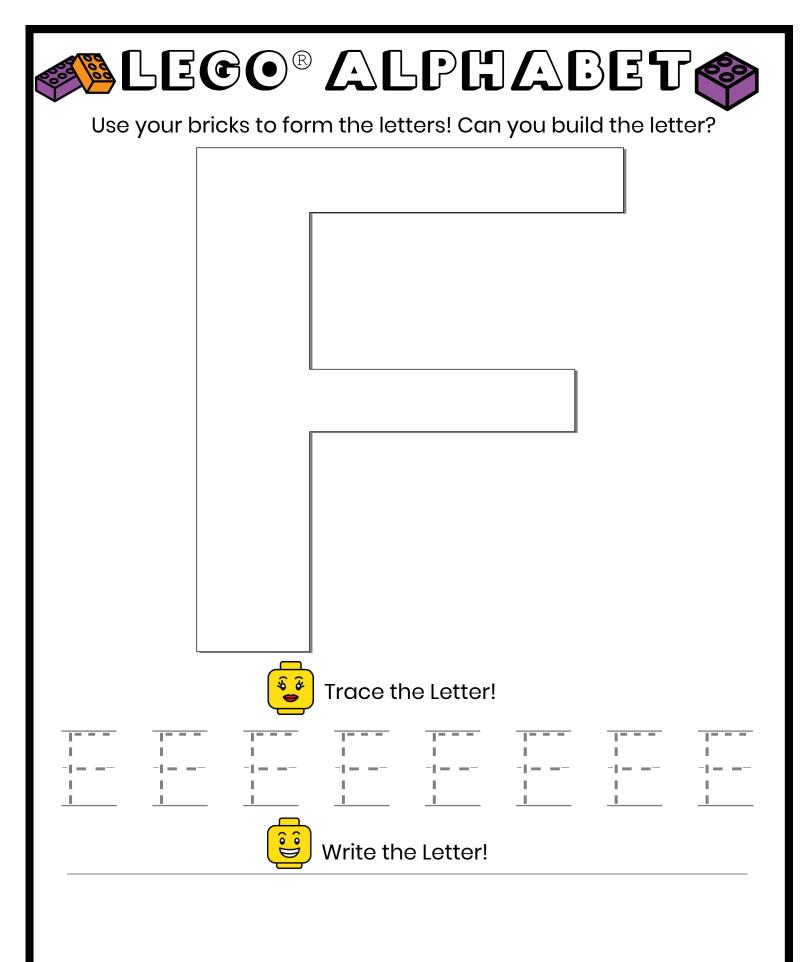


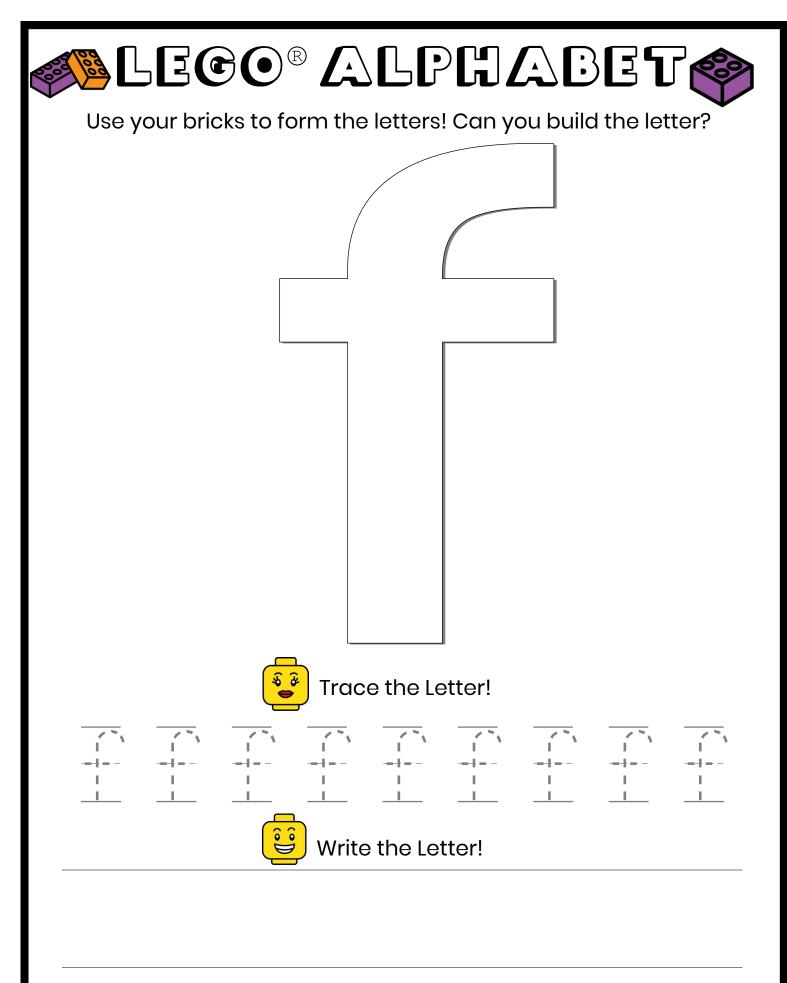


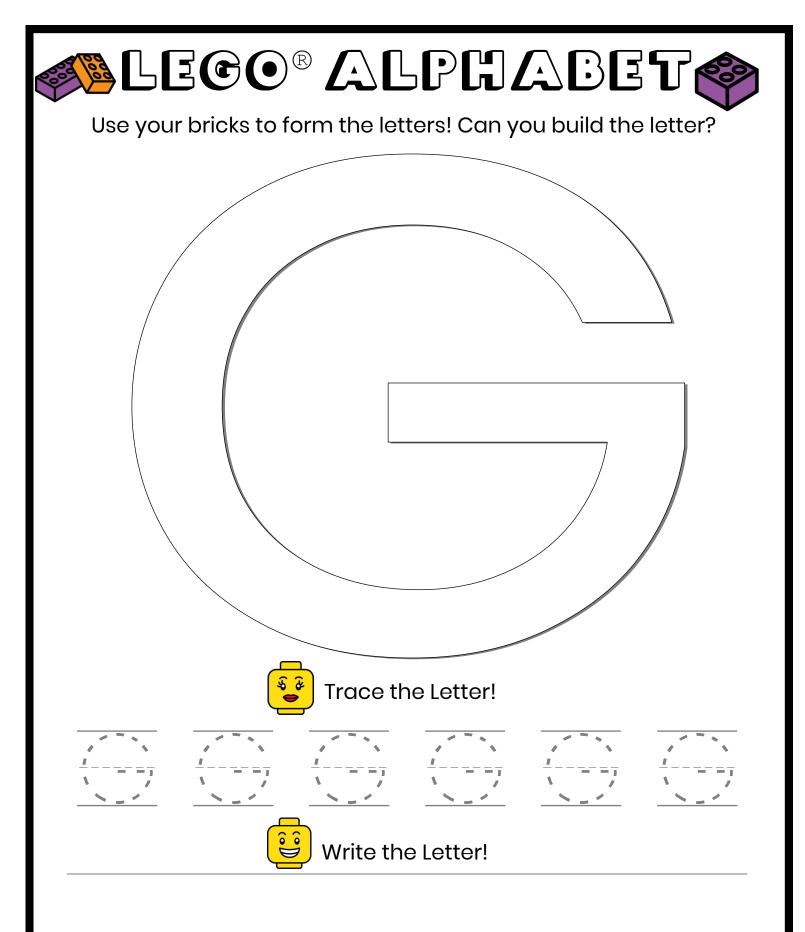




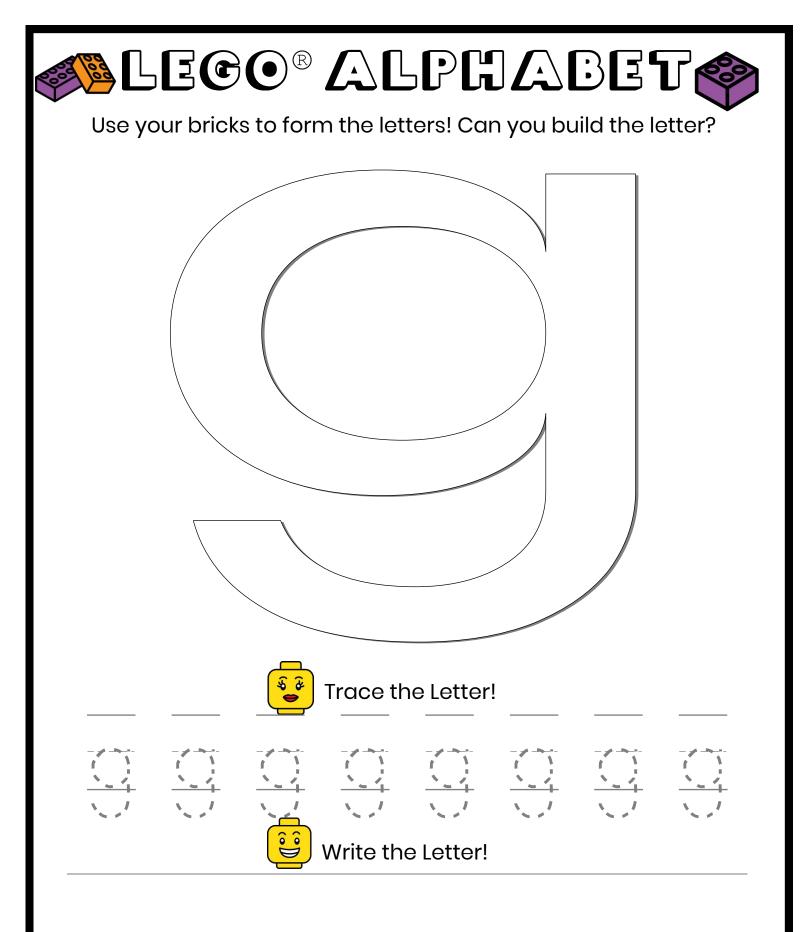


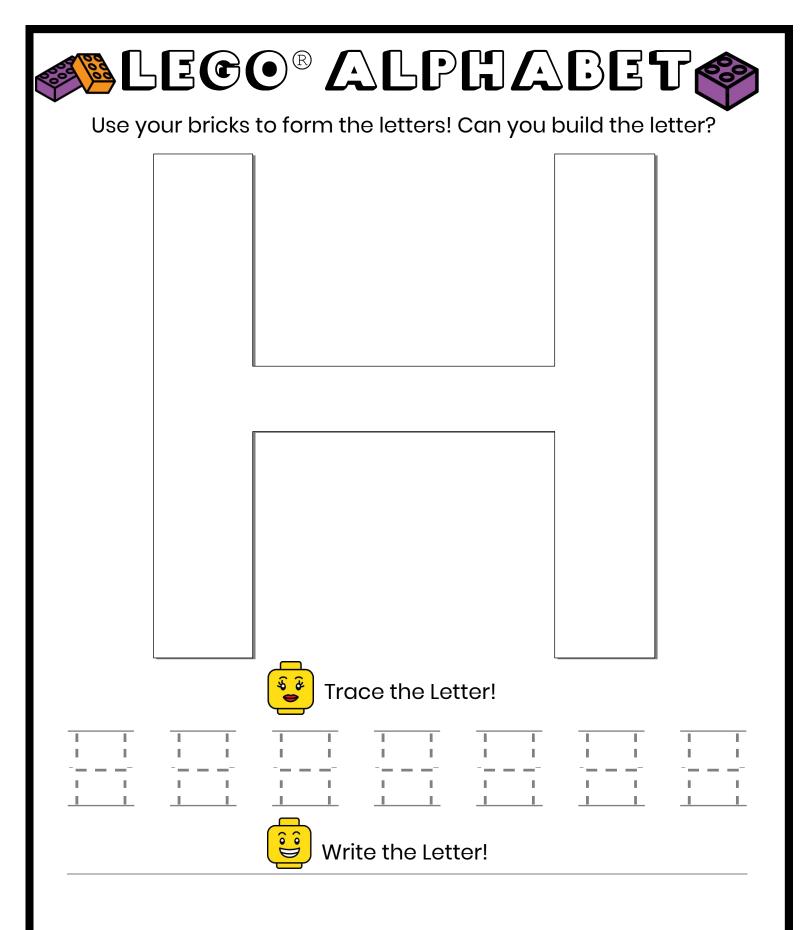


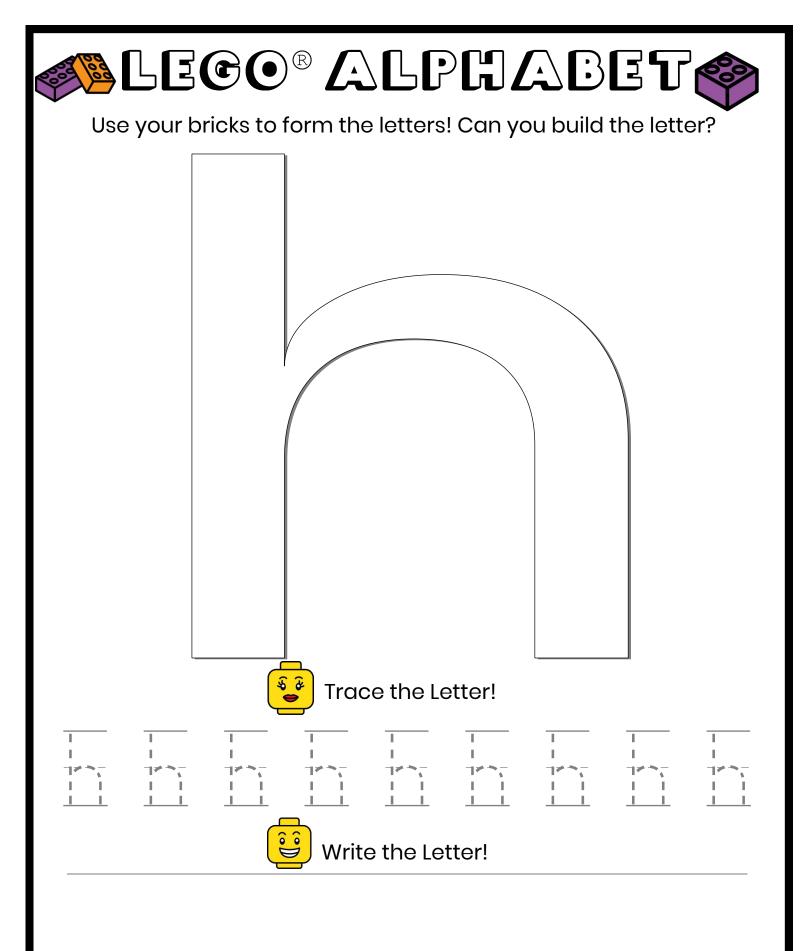


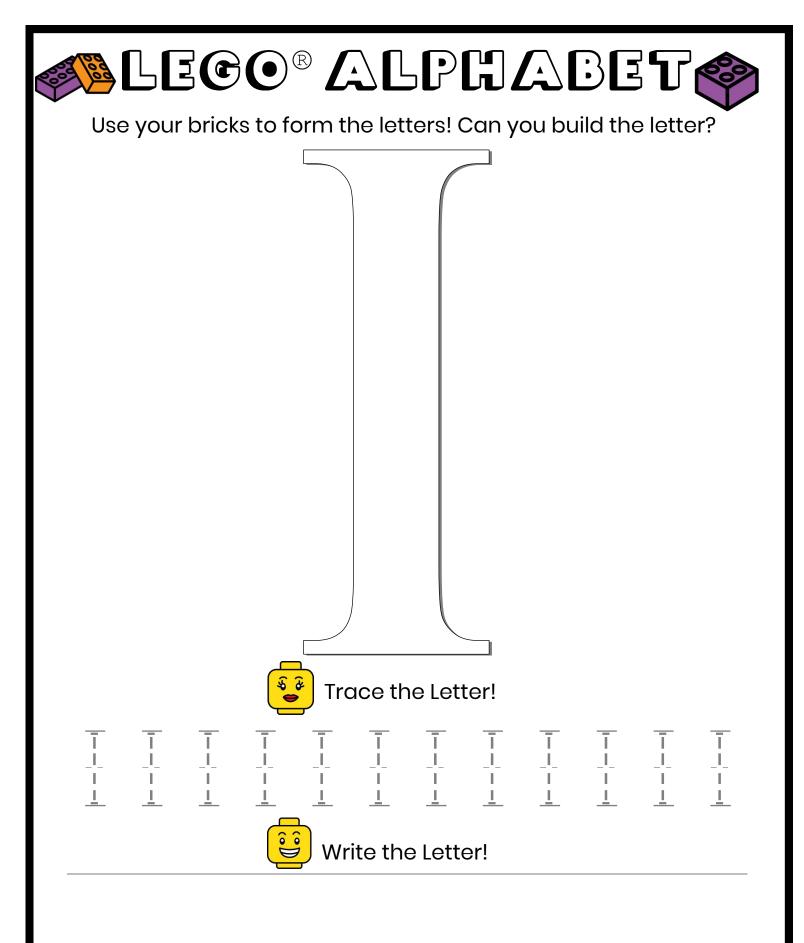


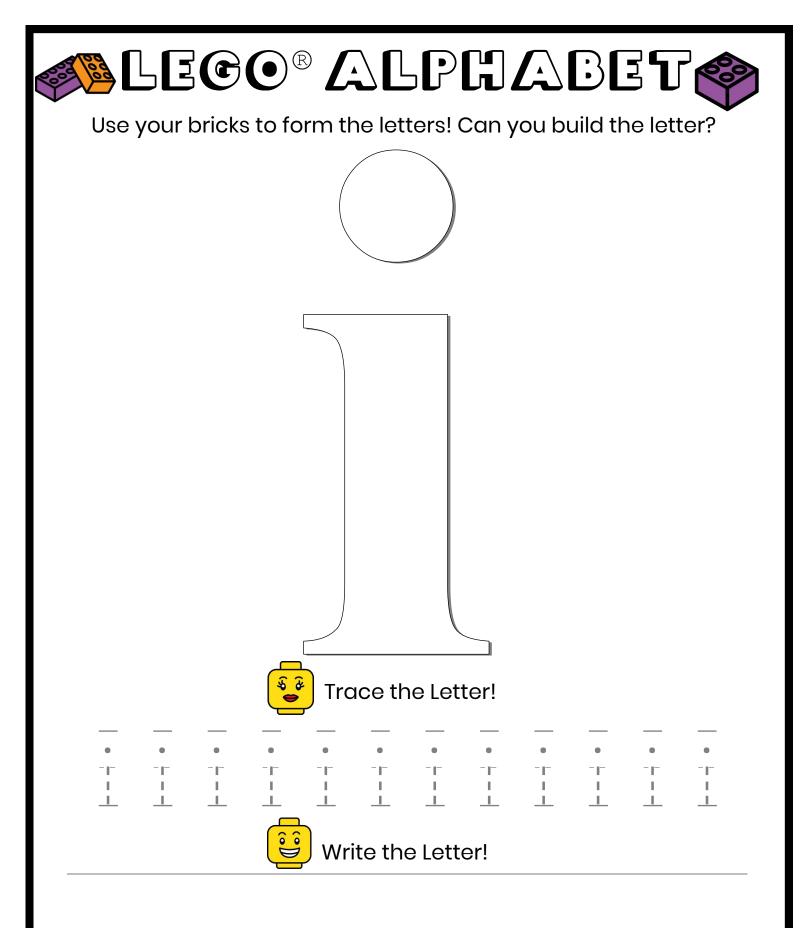
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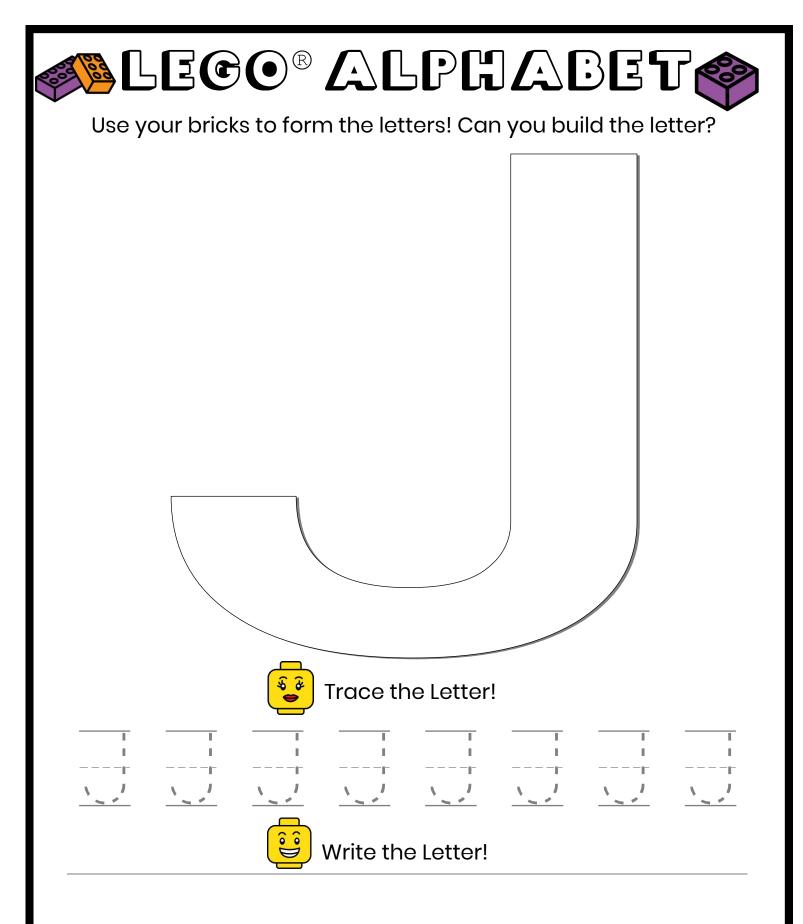




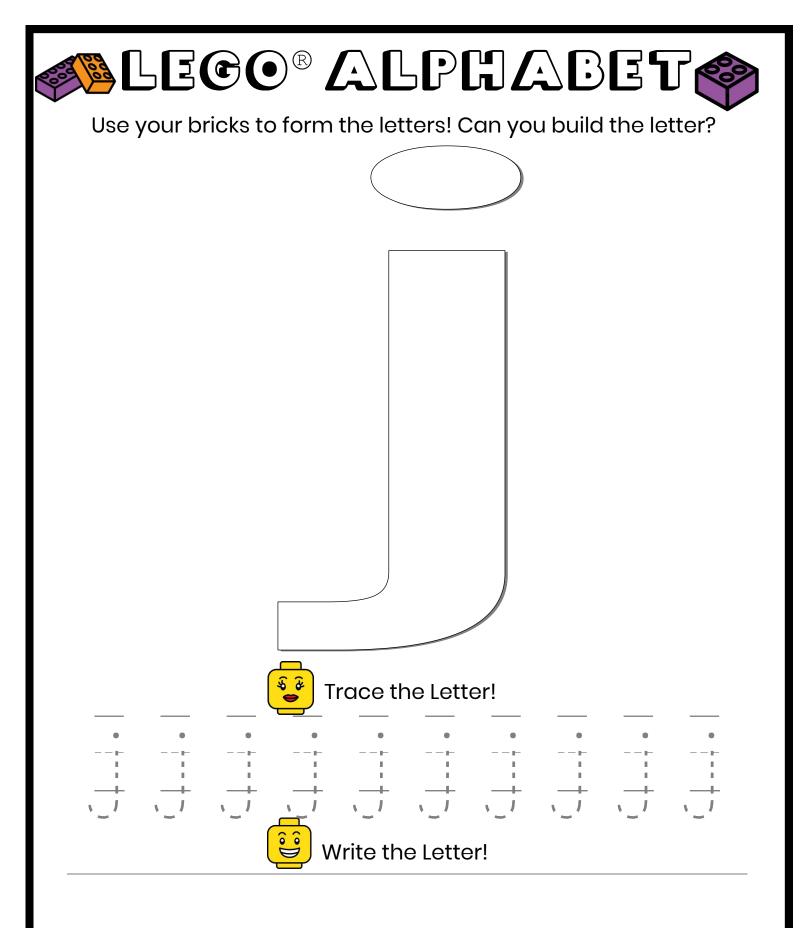


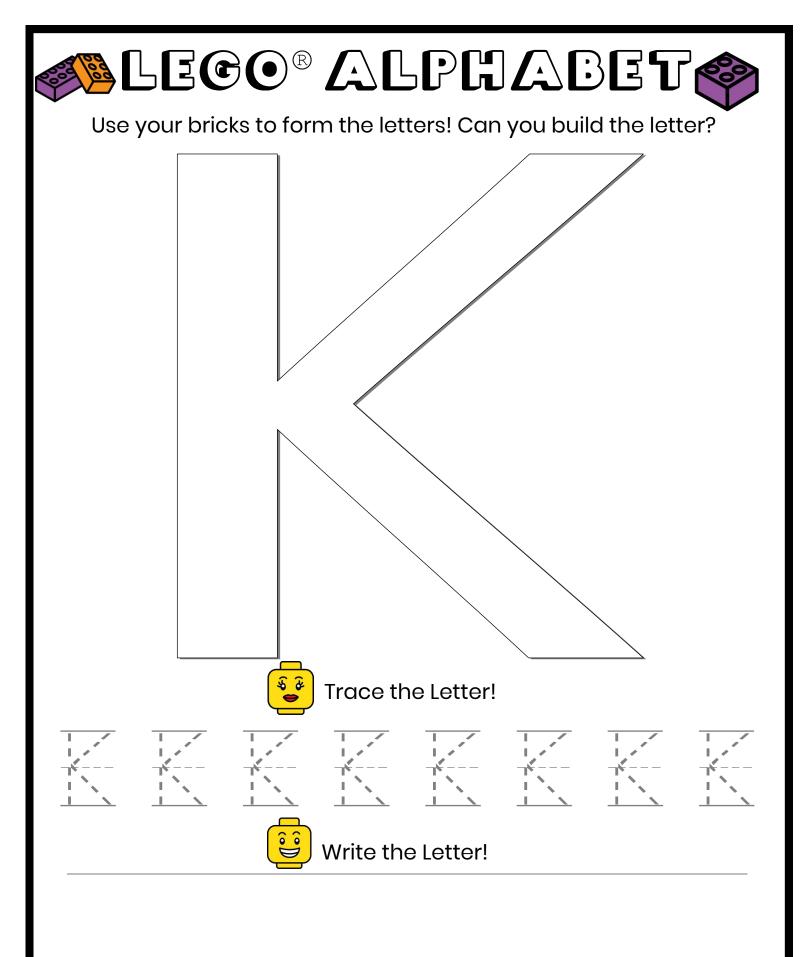


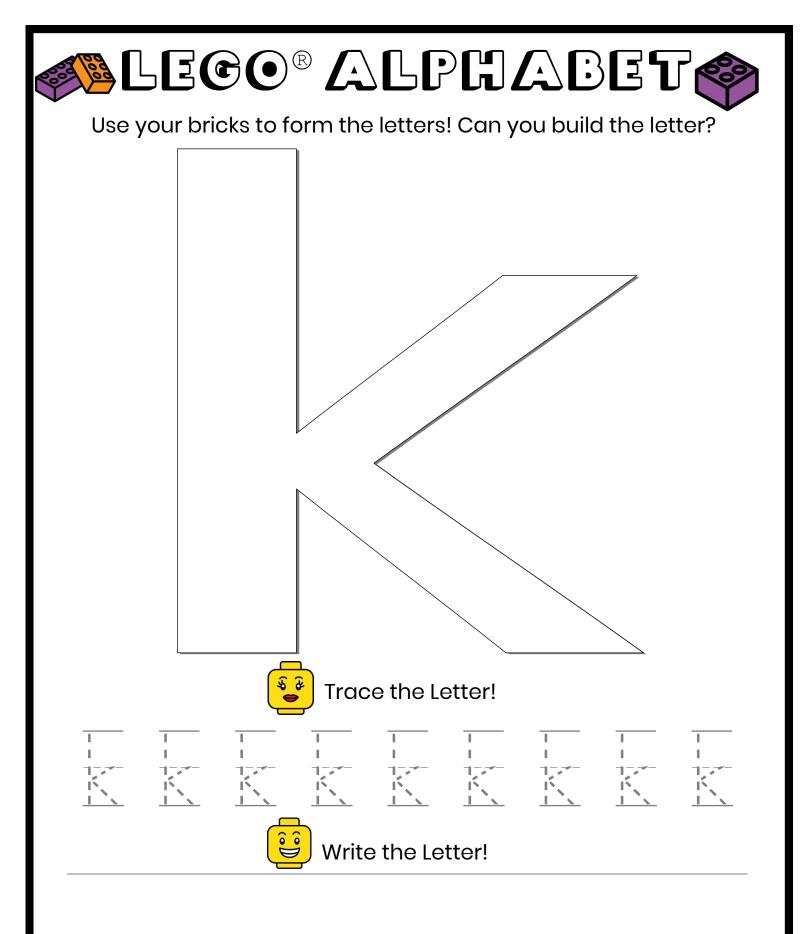


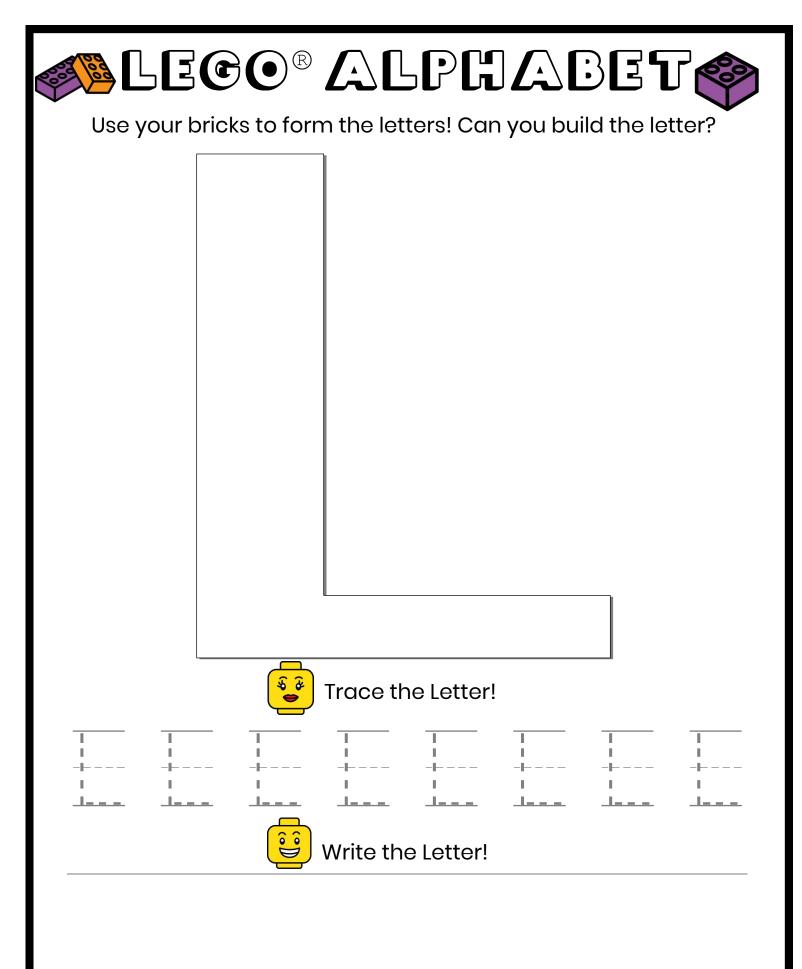


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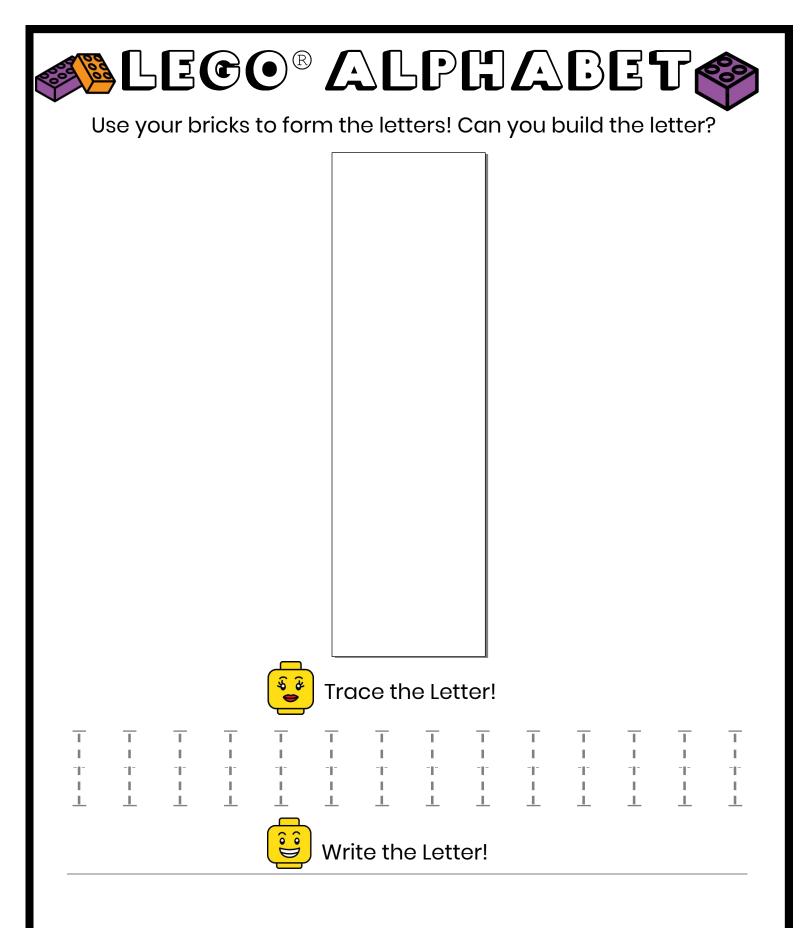


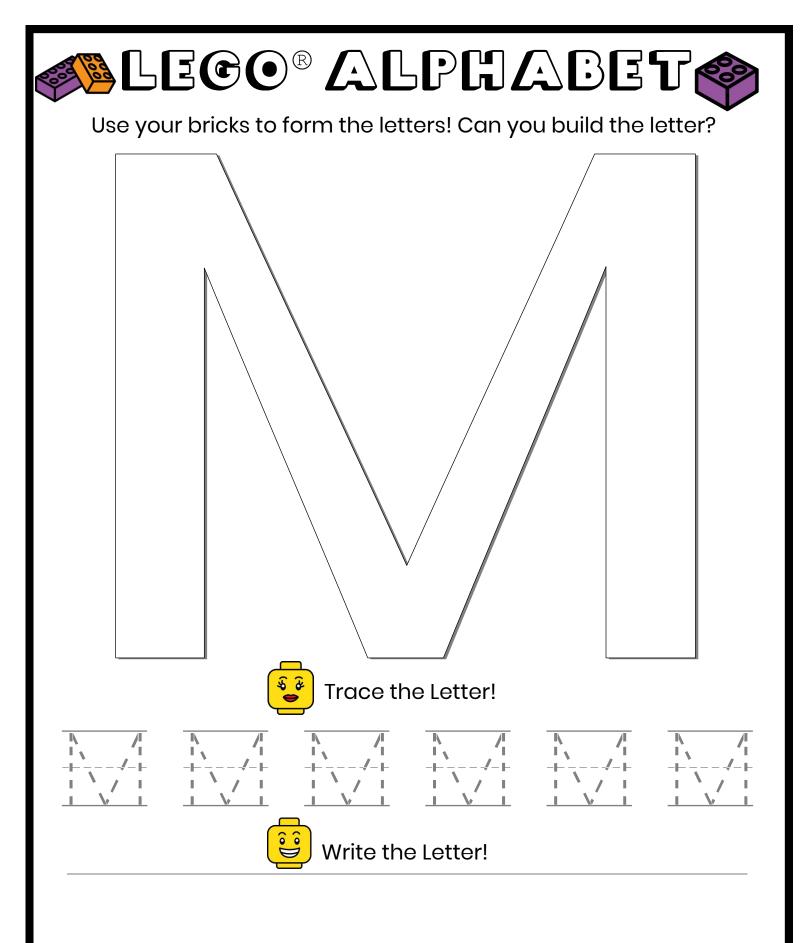


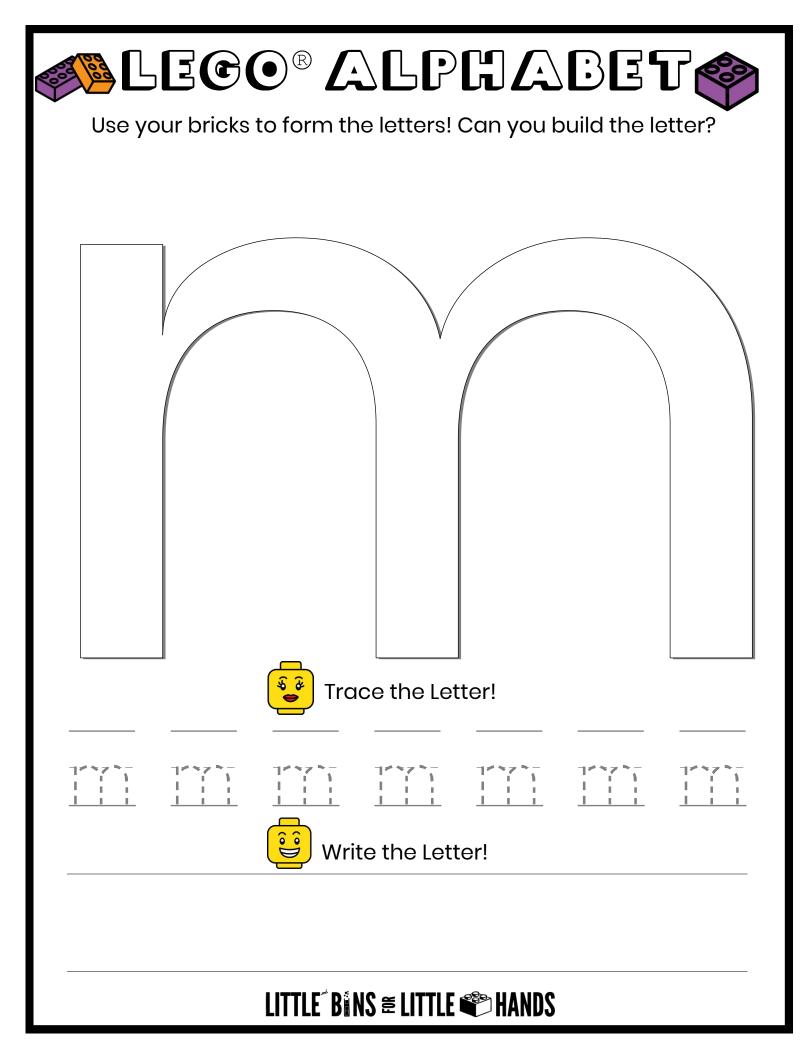


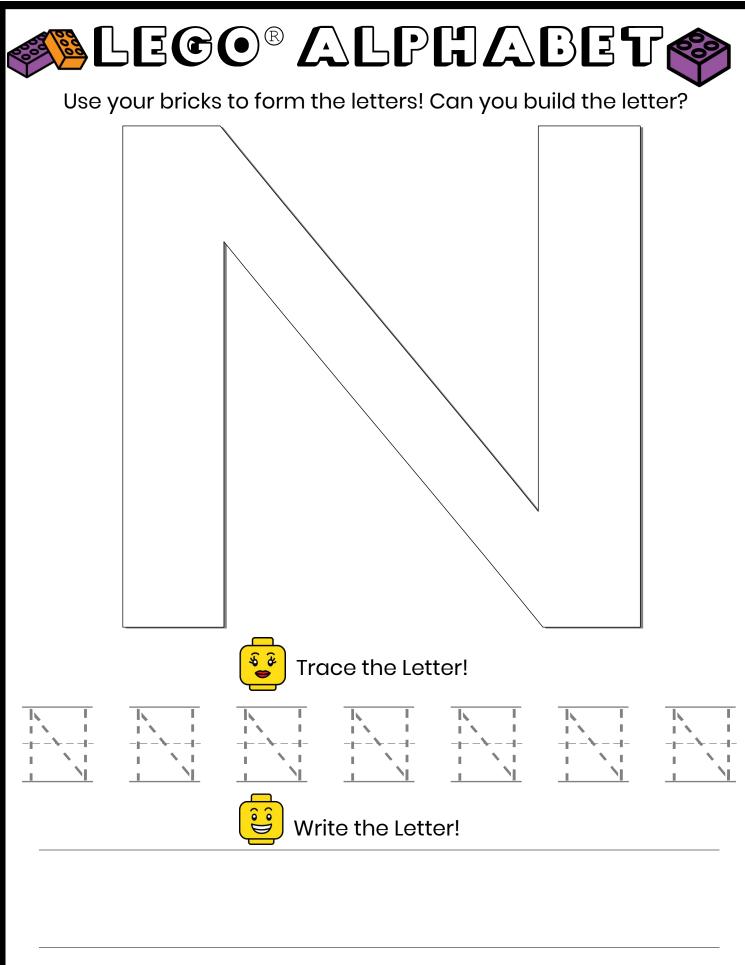


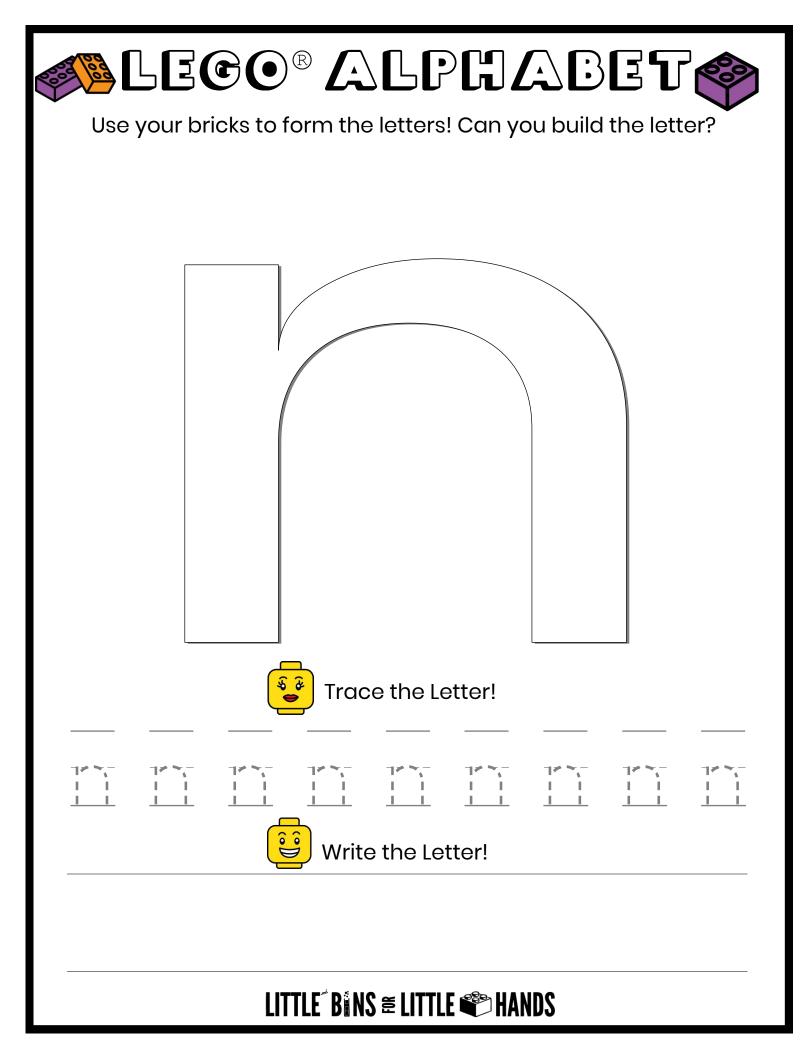
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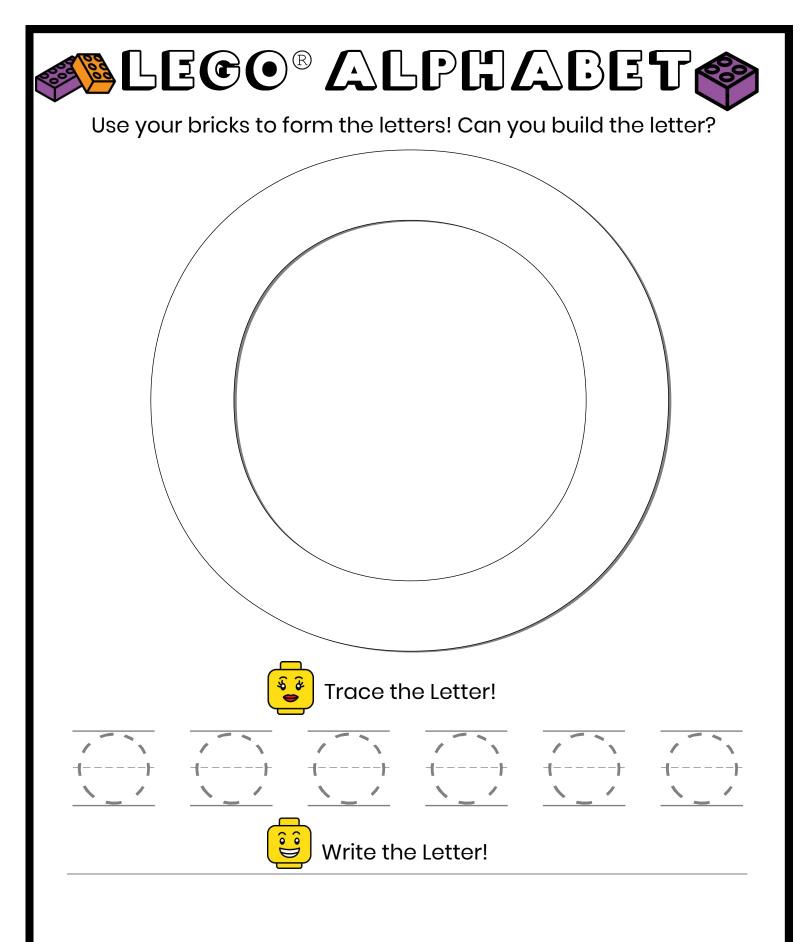


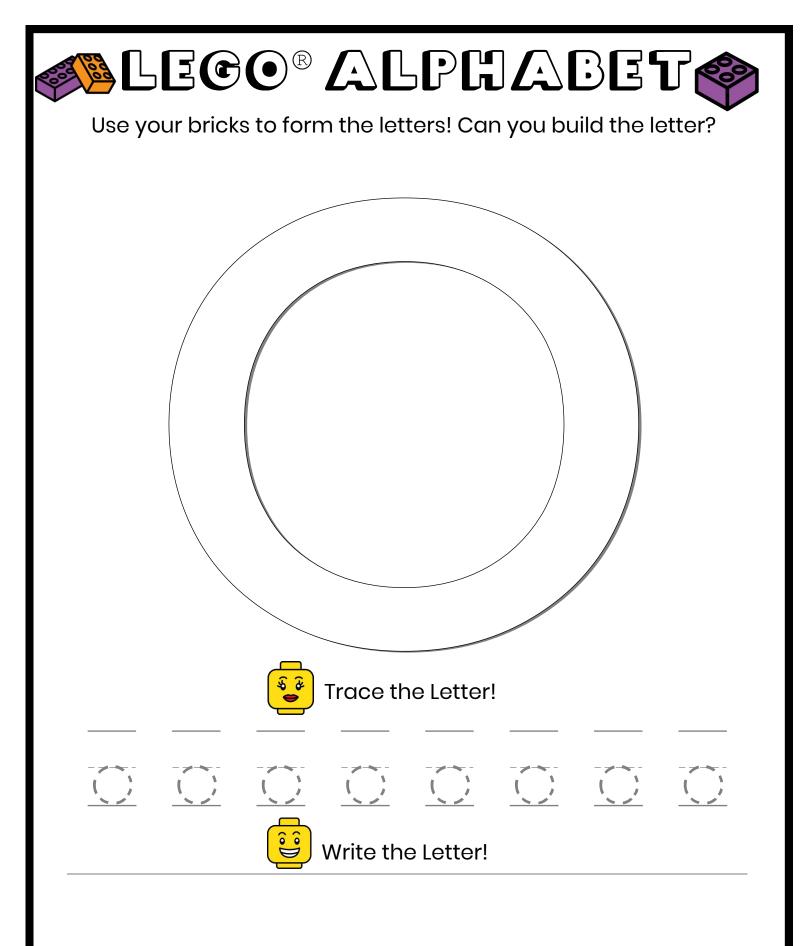


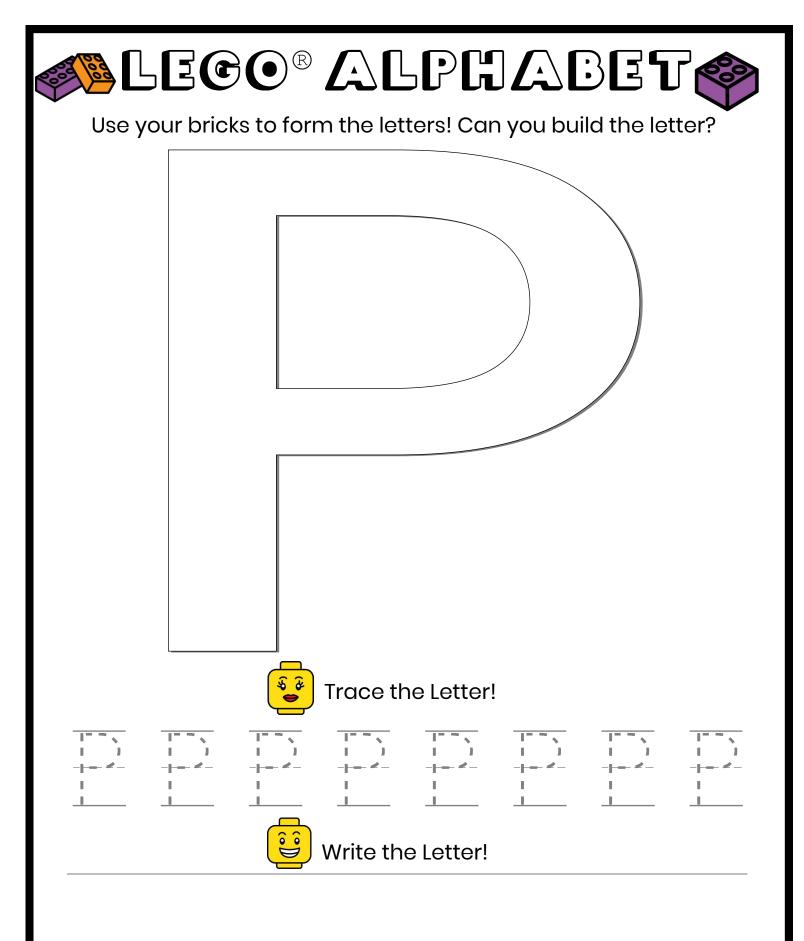




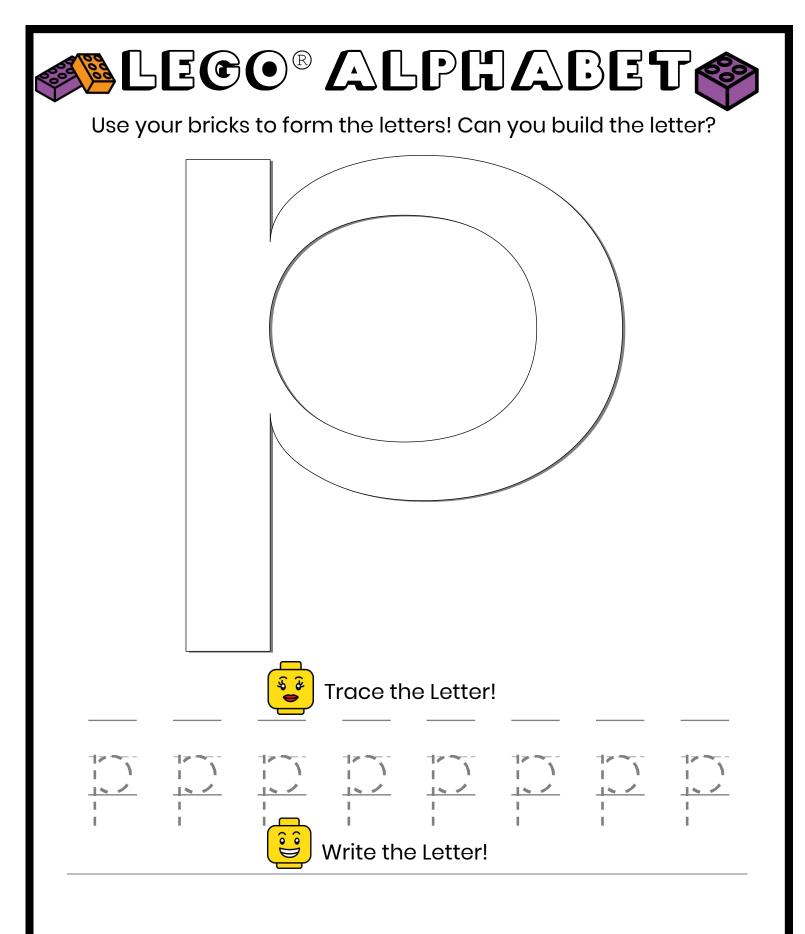


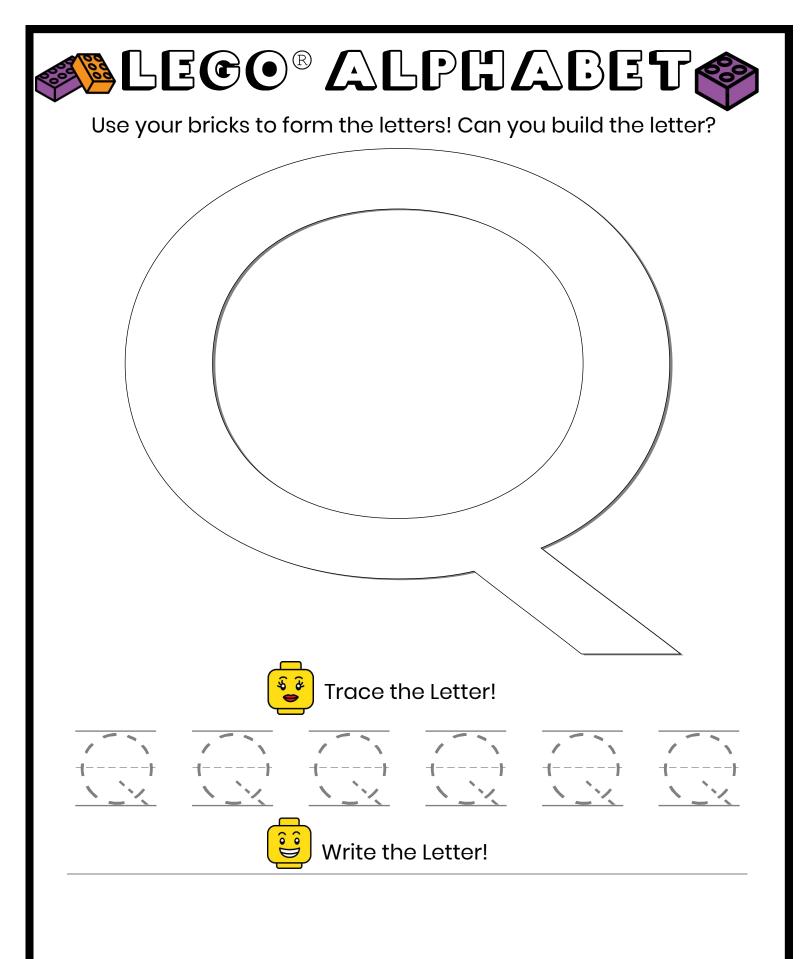


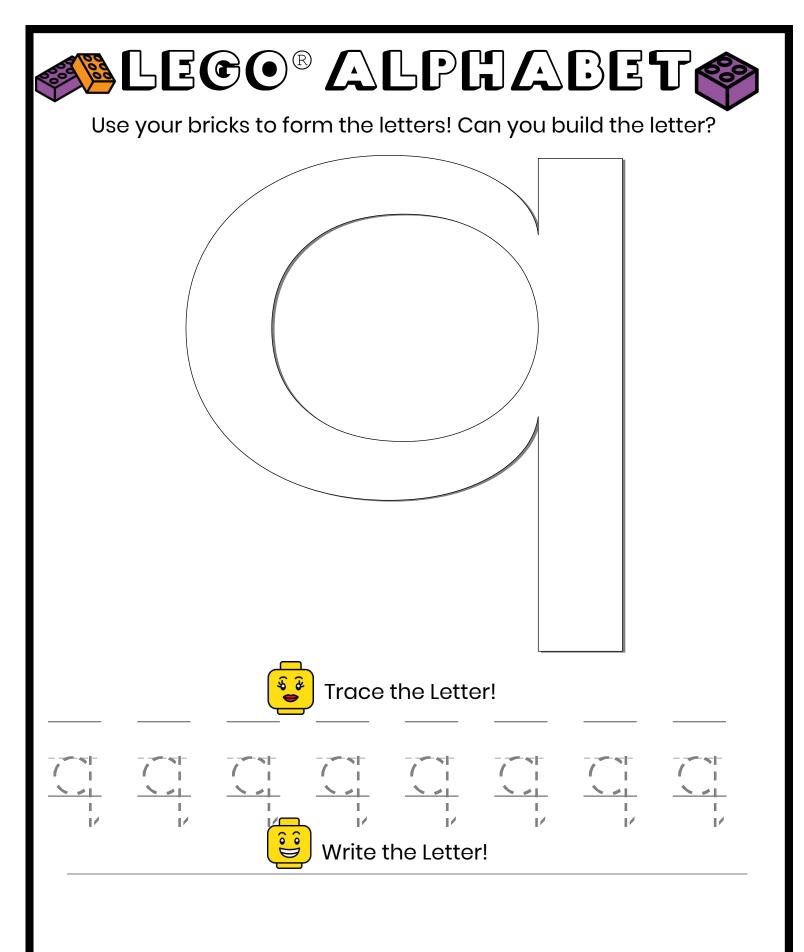


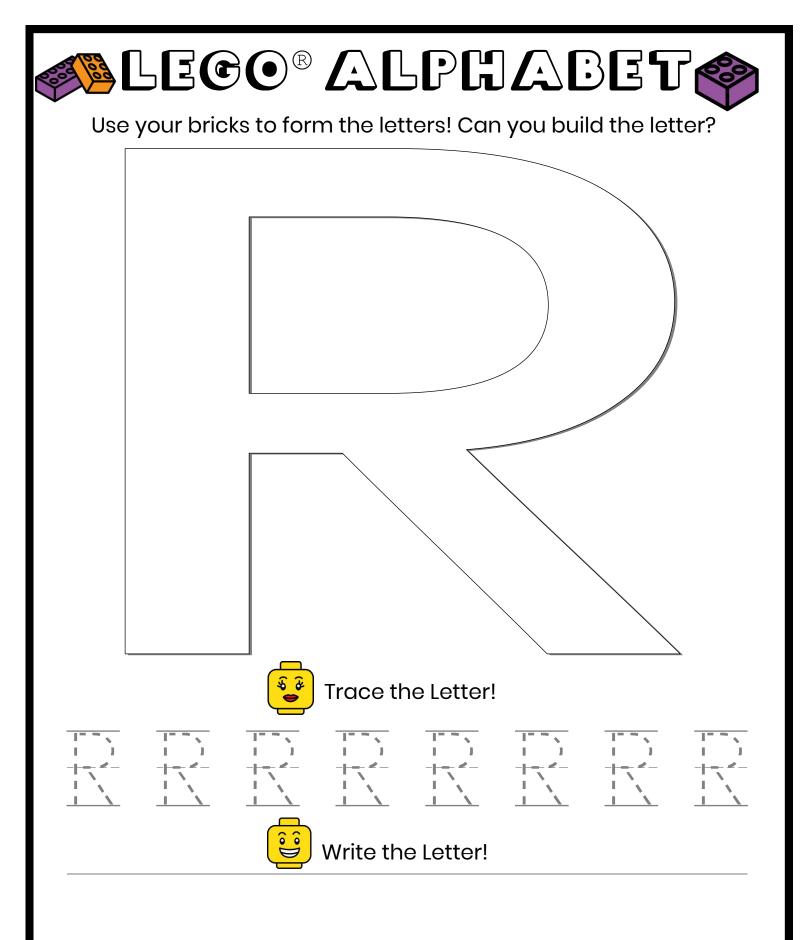


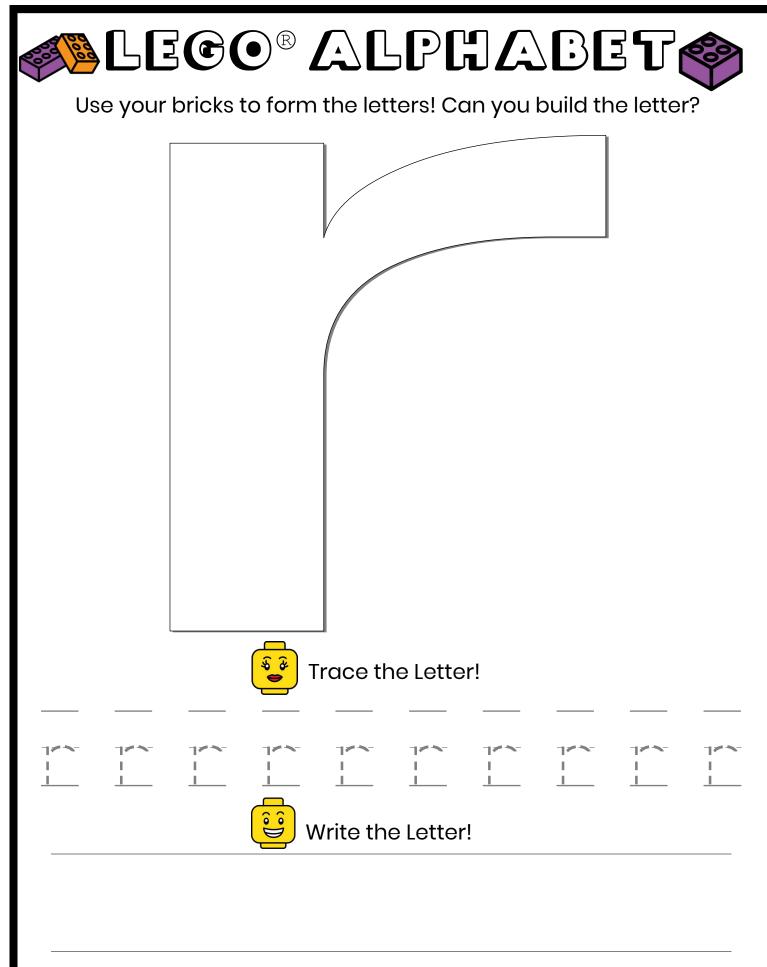
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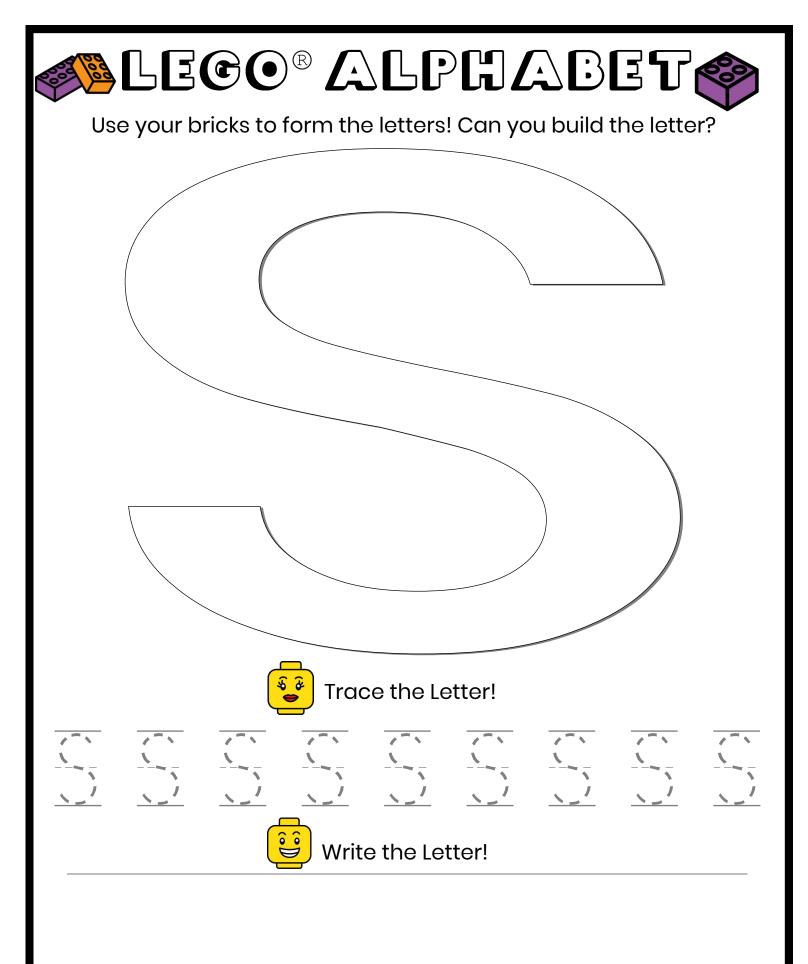


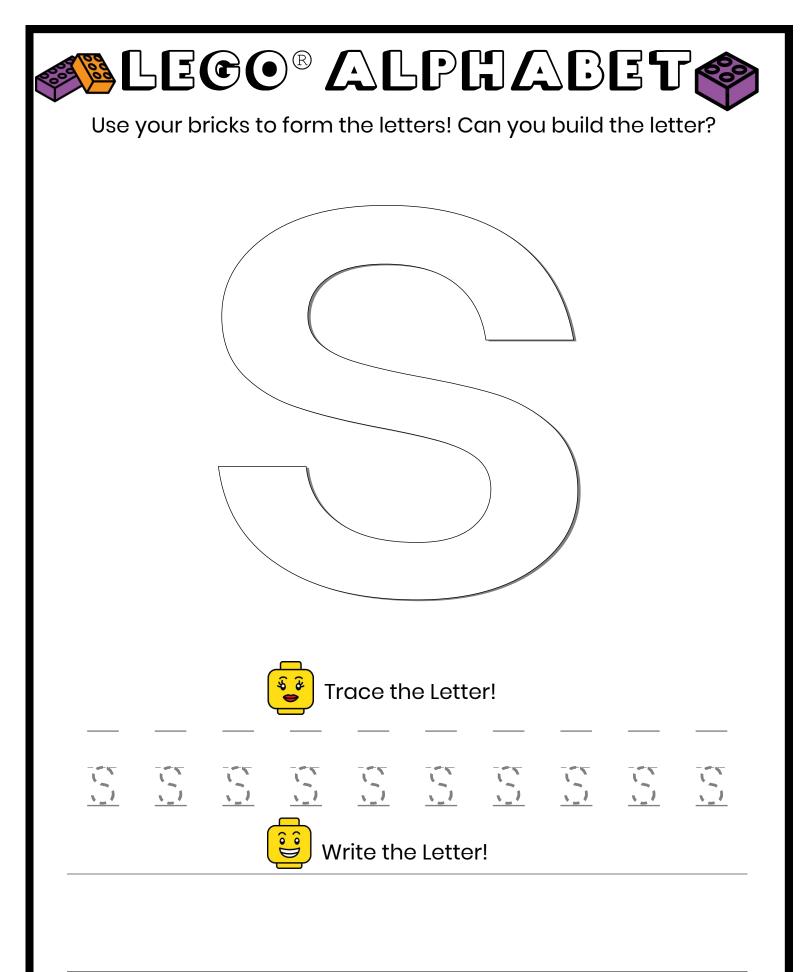




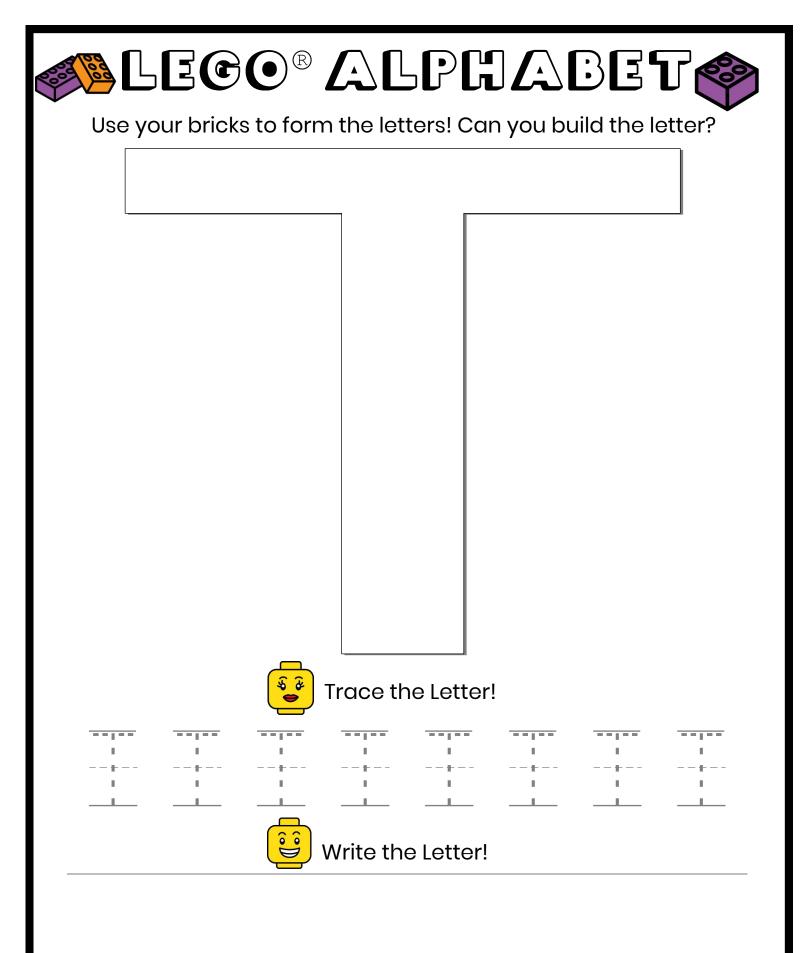








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