#### Family STEM Night

- How can I use my resources wisely to achieve my goal?
- How can I best meet criteria and constraints?
  - Why is planning before building important?

January 27, 2021

### WHY STEM?

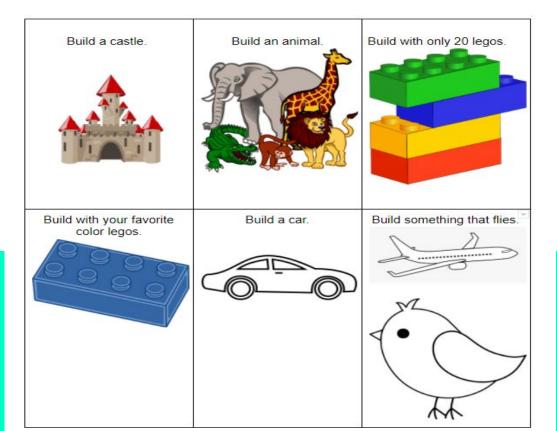


Some materials you may want to have available are...

- Legos
- Blocks
- Stackable Materials (Jenga Blocks, books, etc.)
  - Paper for planning
    - Dice
  - Coloring Utensils

# JOIN THE SHR GOOGLE CLASSROOM HTTPS://CLASSROOM.GOOGLE.COM/C/MTGXMJC50TK1NZY5?CJC=B3ZG CCX

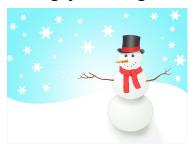
#### LEGO CHOICE BOARDS



Choose your favorite color and make a snowflake.



Make a snow person using your legos.



Build an igloo using your legos.



Build a sled using your legos.



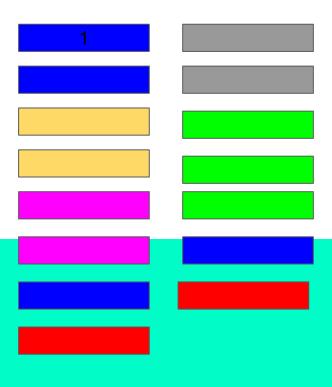
Make an ice castle.



Make a big cup of hot chocolate with your legos.

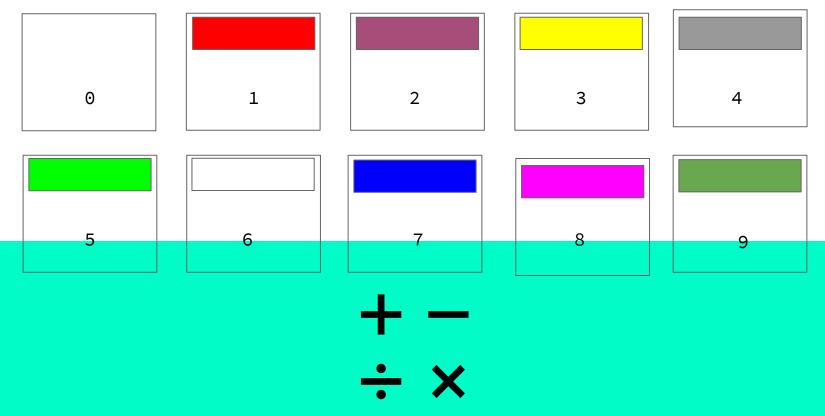


### LEGO CODING



#### WRITE YOUR OWN CODE!

## LEGO MATH



#### LEGO MATH

- 1. Choose which operation you are going to complete (Add, Subtract, multiply or divide)
- 2. Roll the di to find out how many legos you are going to take out. Take out the amount of legos that you need.
- 3. Group the legos together into at least 2 groups.
- 4. Use the codes to figure out the value of the legos.
- 5. Solve the problem.
- 6. Represent the answer with legos.



### LEGO LETTERS



#### Make your name out of Legos.

Use only one color Legos.	Make your name using less than 20 legos.	Make a pattern with the letters of your name.
Use all the same size legos.	Make your name using a handful of legos.	Make your name 3D.

#### LEGO DESIGN CHALLENGES

- Design the ultimate playground with your legos. Have a slide, swings and monkey bars.
- A LEGO person who lives in the Lambertville/West Amwell wants to visit his LEGO friend in New Hope. To get across the river that separates NJ and PA, the LEGO person can only drive. Build a bridge that is strong and sturdy.

\*Come up with a plan before you build. Share your plan with the group. After you build, reflect on your plan. What would you do differently next time? What worked? \*

## QUESTIONS?



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