

# Spaghetti Tower Challenge

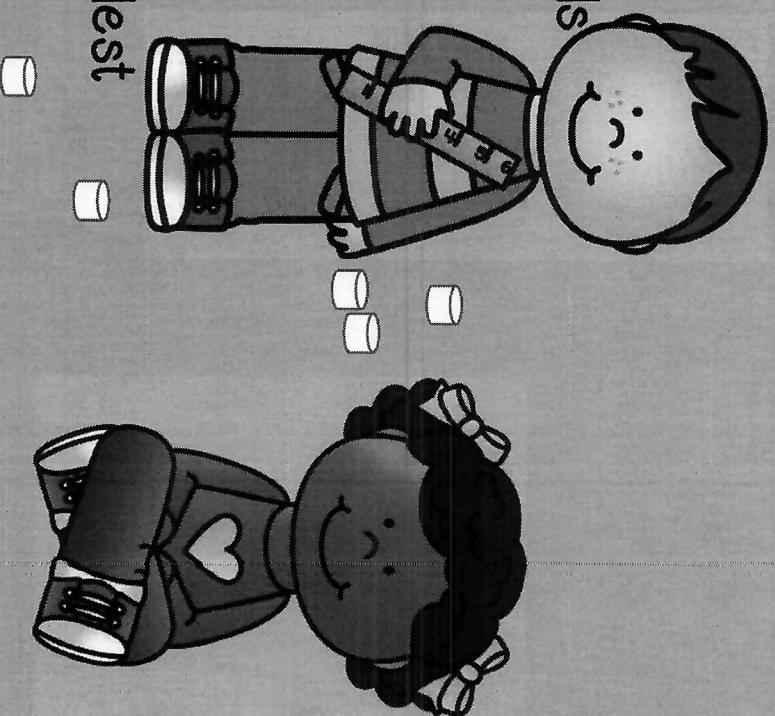
## Problem:

Using the Engineering Design process, create the tallest tower possible with the materials given.

- 25 pieces of spaghetti
- One 8oz. Cup of mini marshmallows
- (Your cup may NOT be used in your design)

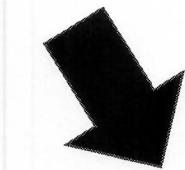
You will be competing to see who can build the tallest structure. Your teacher will tell you what unit of measure you will be using.

Your teacher will tell you how much time you have to complete this challenge – Good Luck!

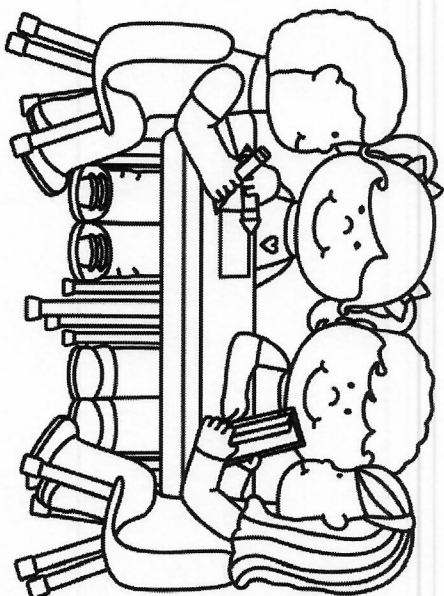


# Engineering Design Process

1. Problem



5. Improve



2. Imagine



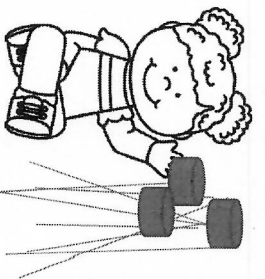
4. Create



3. Plan



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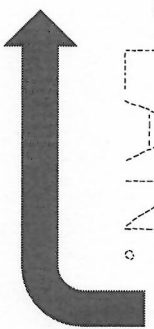
BUDDIES: \_\_\_\_\_

PROBLEM: Write the problem in your own words \_\_\_\_\_

Draw and label a picture of what your tower will look like.

IMAGINE/

PLAN:

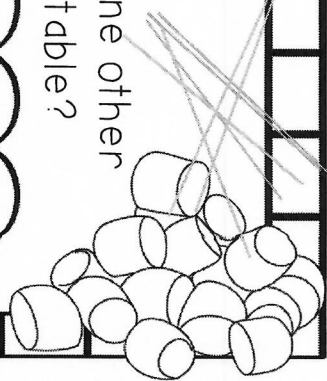


CREATE:

Decide who will do each job. Make sure everyone gets a turn!

# PRESENT/TEACH:

Walk around and look at the other towers made. Compare your tower to one other tower in the room. What is similar, what is different? Which seems more stable?



SAME

DIFFERENT

ILLUSTRATE:

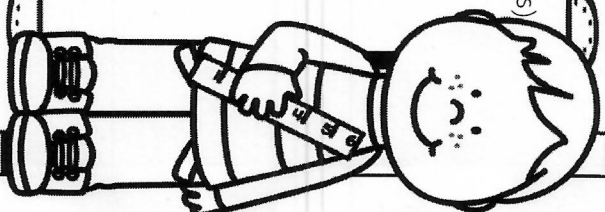
Draw what their tower looked like.



**TEST**: Does your tower stand on it's own without help? Y/N

If you push lightly on your tower, does it start to fall? \_\_\_\_\_  
Did you use all of the materials you were given? \_\_\_\_\_

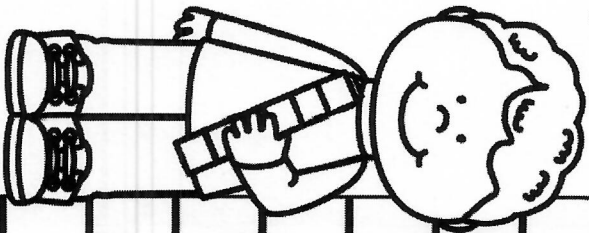
Draw and label the tower that you and your buddy have built. (You might want to turn your paper sideways)



**IMPROVE**: If you were to build your tower again, what would you do differently? \_\_\_\_\_

What are some improvements that you tried with this challenge?  
\_\_\_\_\_  
\_\_\_\_\_

# DATA COLLECTION: Your teacher will tell you what you will use to measure your tower!



How tall is your tallest free standing tower? \_\_\_\_\_

How wide is your tower at the base? \_\_\_\_\_

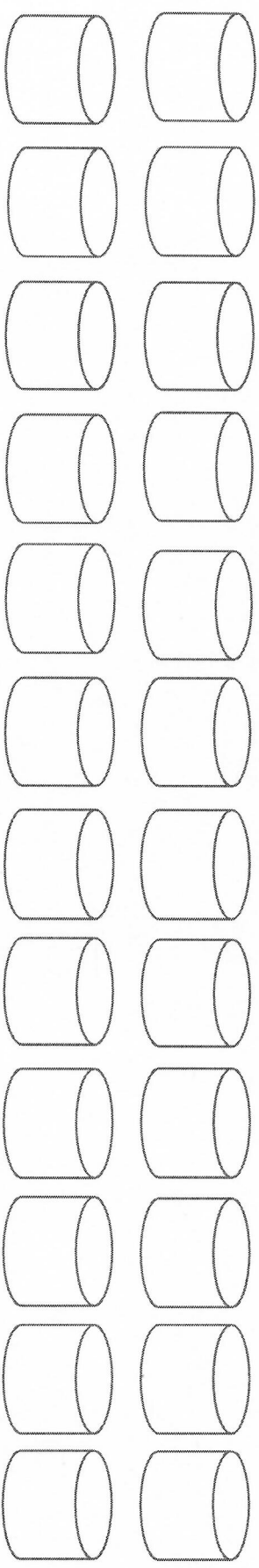
Go examine four other towers. Ask their owners what the height is. Record it in inches below.

\_\_\_\_\_

Use tally marks to show:

How many mini marshmallows did you use? \_\_\_\_\_ marshmallows

How many pieces of spaghetti did you use? \_\_\_\_\_ spaghetti



Color the marshmallows above with an ABBCD pattern.