



The Marshmallow Challenge



Task: To build the tallest free standing tower you can with only spaghetti, marshmallows, and tape

SUPPLIES:

- Teams of 3 or 4
- 20 sticks of spaghetti
- 1 yd of masking tape
- 1 yd of string
- 1 marshmallow



Learning target:

I will collaborate with my group while actively participating in the marshmallow challenge by contributing my ideas and thoughts.

RULES:

The winning team is the one that has the tallest freestanding structure measured from the floor (or top of desk) to the top of the marshmallow.

The entire marshmallow needs to be on top of the structure.

The team can use as many or as few of the 20 spaghetti sticks, as much or as little of the string or tape. Teams are free to break the spaghetti, cut up the tape and string to create new structures.

Teams cannot hold on to the structure when time runs out. Those touching or supporting the structure at the end of the exercise will be disqualified.

Remember: This is a group building activity. Make sure all are included and everyone's ideas are being listened to. Does everyone in your group have a role? Are you sharing ideas? Are you respectful of everyone in your group?



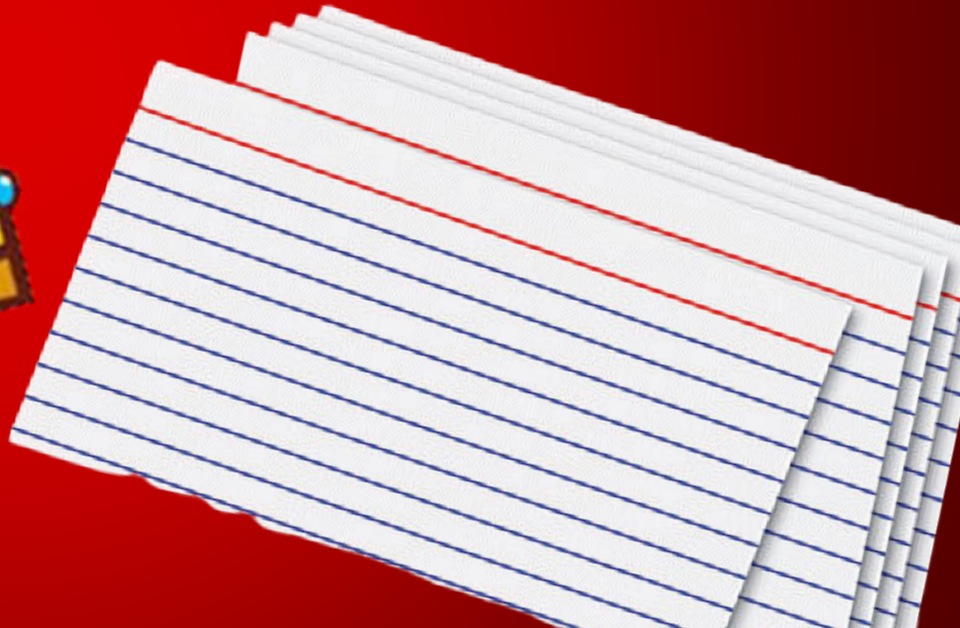
**Towers must be
free standing**

**The team with the tallest
tower—that holds an intact
marshmallow on top wins.**



EAM members	Tower name	Height

card castle



SUPPLIES

→ 100 note cards

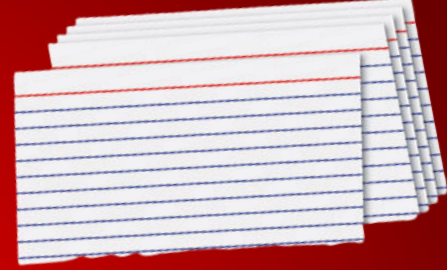
→ stuffed animal

GOAL

Create the tallest
free-standing tower
that is strong enough
to hold your “ruler”
on the top



RULES



You may bend or tear your notecards if you choose but you will not be given more cards to replace them if you change your mind

We can measure yours to get your measurement on the board at anytime and then you can continue to try to improve that height.

Free-standing means you can't hold it and it can't lean on the wall, a desk, etc

PROTECT THE PRINGLES



PROTECT THE PRINGLES

The Goal

To engineer a structure design that will protect a Pringle without any damage.

You will create a structure to safely protect your Pringle from a book being dropped on it.



PROTECT THE PRINGLES

Rules

- ❑ Students will use only 1 Pringles Potato Chip.
- ❑ The chip cannot be altered in any way. Do not apply any kind of substances to the chip.
- ❑ Work in a small group to brainstorm, design, and test package.



PROTECT THE PRINGLES



Supplies (you don't need to use all of them)

- ☐ 15 index cards
- ☐ 2 feet of tape
- ☐ 2 paper clips
- ☐ 2 rubber bands
- ☐ 2 pipe cleaners
- ☐ 2 straws





SAVE FRED

Only You Can Help to Save Fred!

Fred has been spending his summer boating in Door County. But he's not too bright (after all, the brains of worms are pretty small 😊)



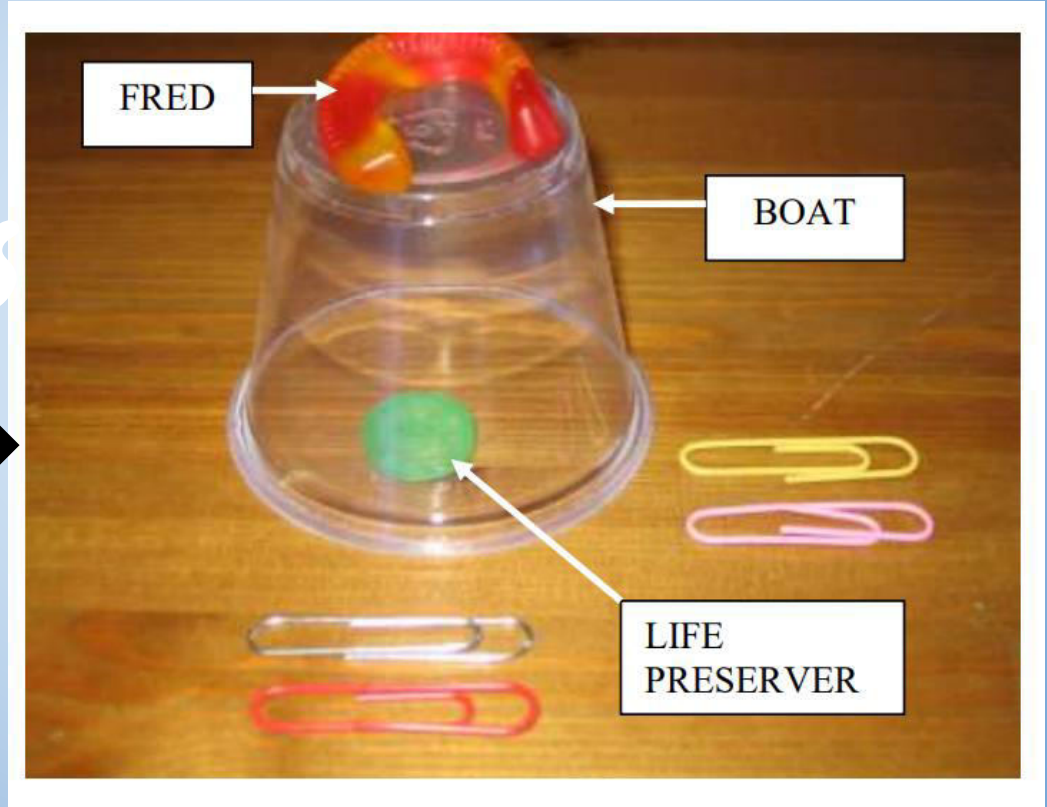
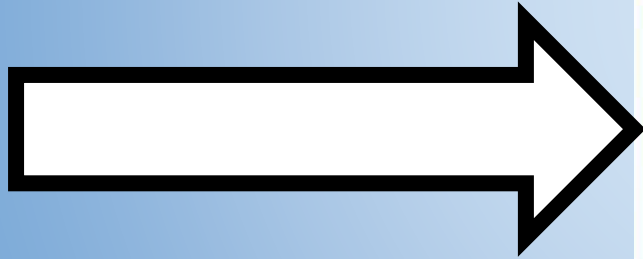
SAVE FRED



He's never learned how to swim and he never wears his life preserver. The worst has happened! His boat has capsized and he's stuck! Fortunately, his life preserver is in the boat, but unfortunately he does not know how to reach it without falling off and drowning.

SAVE FRED

START LIKE THIS



SAVE FRED



Problem: How can you and your partner save Fred using only 4 paper clips? You **may not touch** Fred, the boat, or the life preserver directly with your hands!

SAVE FRED



Materials:

- ★ Gummy Worm
- ★ Gummy life preserver
- ★ 1 plastic cup
- ★ 4 Paper Clips

SAVE FRED



END GOAL

