



Marshmallow Challenge

Build the Tallest Freestanding Structure

INTRO

The task is simple: in eighteen minutes, teams of four people must build the tallest free-standing structure out of 20 sticks of spaghetti, one yard of tape, one yard of string, and one marshmallow. The marshmallow needs to be on top.

SUPPLIES

- 20 sticks of spaghetti
- 1 yard of tape
- 1 yard of string
- 1 marshmallow
- 1 measuring tape
- 1 stopwatch

INSTRUCTIONS

1. Build the Tallest Freestanding Structure: The winning group is the one that has the tallest structure measured from the table top surface to the top of the marshmallow. That means the structure cannot be suspended from a higher structure, like a chair, ceiling or chandelier. Remember:
 - **The entire marshmallow must be on top.** If a group cuts or eats part of the marshmallow, the group will be disqualified.
 - **You can use as much or as little of the kit.** The group can use as many or as few of the 20 spaghetti sticks and as much or as little of the string or tape.
 - **You can break up the spaghetti, string or tape.** You are free to break the spaghetti, cut up the tape and string to create new structures.
 - **The challenge lasts 18 minutes.** Those touching or supporting the structure at the end of the exercise will be disqualified.
2. Start the Challenge:
 - **Walk around the table.** It's amazing to see the development of the structures as well as notice the patterns of innovation most teams follow.
 - **Remind the teams of the time.** Count down the time for the teams.
3. Finish the Challenge:
 - **Measure structures.** Measure and call out the heights for the shortest standing structure to the tallest.
 - **Identify the winning team.** Ensure they get a standing ovation and a prize (if you're offering one).
 - **Wrap up with the lessons of the challenge.** Describe some of the key lessons of the marshmallow challenge with discussion questions below.

DISCUSS

- Surprising lessons emerge when you compare teams' performance!
- Who tends to do the worst? Why?
 - Who tends to do the best? Why?
 - What improves performance? What kills it?