**Build a Tower, Build a Team**

This fun and competitive building exercise will challenge even the most creative thinkers and leave your team wanting s’more!

| Type | Creative activity |
| --- | --- |
| Purpose | Creativity and innovation |
| Topics | Creative thinking, innovation, problem-solving, communication, collaboration, team building, challenging assumptions |
| Audience | General |

## **About this activity**

Summary

Build a Tower, Build a Team is based on an activity by business visualization expert and TED speaker Tom Wujec to introduce teams to design thinking. According to a survey by Parsons New School, 75% of organizations across all industries say they use design thinking principles. Many are looking to hone and develop this skill within their teams, particularly among non-designers, and this activity “rises” to the challenge. The hands-on exercise is suitable for an in-person, general audience.

In this creative exercise, teams will collaborate together to build the tallest freestanding structure possible that can support a marshmallow using common household objects - sticks of spaghetti, a yard of string, and a yard of masking tape. More than a team-building activity, this exercise tests the value of making assumptions and reinforces the critical design thinking concept that prototyping and play are crucial problem-solving tools when building out a new product or process.

#### Important details

| Best for groups of |  4-6, up to 60 total participants |
| --- | --- |
| Preparation time | 15 minutes |
| Duration | 45 minutes - 1 hour |
| Required materials | * Timer or stopwatch
* Retractable measuring tape
* Kit for each participant group, which includes:
	+ 20 whole sticks of regular spaghetti
	+ 1 fresh, regular-size marshmallow
	+ 1 yard of masking tape
	+ 1 yard of string (thin string works well)
	+ Paper bag to contain all materials
* Optional: a fun, s’more-themed prize for the winning team
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| Required location | * Access to a table or stable building surface for each group
* Indoor only
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| Noise level | Medium  |

## **How it works**

#### Instructions

Preparation for the activity (15 minutes):

The facilitator will prepare the tower construction kits and have them available to hand out to teams after the instructions are given. Kits should not be left unattended on tables. In advance, the facilitator should search “marshmallow challenge” and watch a few videos on how the exercise is solved.

Conducting the activity:

Introduction (15 minutes):

The facilitator will introduce the activity by telling participants they will be working together in small groups to build the tallest freestanding structure possible that can support an entire marshmallow placed on top. Sounds easy, right? Not so fast, the facilitator will caution.

The facilitator will divide the participants into small groups of 4-6 participants and guide participants to their workstations before giving further instructions.

Once the teams are in place, the facilitator should inform the groups that they will receive a kit with supplies to use to build the tower, which includes 20 sticks of spaghetti, one yard of masking tape, one yard of string, and one marshmallow. The teams will have 18 minutes to build their structure, and at the end, the structure must fully support the weight of the entire marshmallow on the top of the structure. If more than one team builds a successful structure, the tallest structure will be deemed the winner.

After reading the rules, the facilitator will distribute a kit to each team, set the timer, and begin the challenge.

Structure Construction (18 minutes):

As the teams work on construction, the facilitator should observe the groups, provide encouragement, and answer questions about the rules. The facilitator should also countdown time at specific intervals, such as the halfway mark at 9 minutes, 5 minutes, 3 minutes, 1 minute, and the final 10-second countdown.

Final Results Sharing and Wrap-Up (20-30 minutes):

The facilitator will measure all freestanding structures, from shortest to tallest, and record the heights of the towers and declare the winning team. The prize should be presented, if applicable.

The facilitator should ask team members to share their thoughts about the exercise. If the lessons of the exercise are not vocalized during this discussion, the facilitator should offer them as concluding thoughts.

This exercise is designed to expose the hidden assumptions of a project. In this case, the assumption is that the marshmallow is light enough to be supported by the spaghetti sticks. However, the marshmallow is heavier than most people realize, and the solution only comes with building prototypes and playing with possible solutions. This exercise is done frequently with children, who score very well because they approach the problem from a sense of play and are not afraid to dive in and try multiple solutions.

In business, testing assumptions early leads to faster innovation and improved results.

#### Rules

The structure must stand on its own. You can support the structure during its construction, but you must not hold the structure at the end.

Do not eat the marshmallow - or spaghetti! Any team that eats the materials will be disqualified!

You need to place the whole marshmallow at the top of their structures. The marshmallow may not be broken into smaller pieces.

There’s no restriction on how much - or how little - of each ingredient is used, and you do not need to use each ingredient.

Without limitations, you can break your spaghetti and cut the string or tape into smaller pieces.

You may not use the paper bag for construction.

You may not use your phones to research strategies or solutions.

#### Example

Not applicable.

## **Materials**

#### For facilitator

Timer or stopwatch

Retractable measuring tape

Kit for each participant group, which includes:

* 20 whole sticks of regular spaghetti
* 1 fresh, regular-size marshmallow
* 1 yard of masking tape
* 1 yard of string (thin string works well)
* Paper bag to contain all materials

Optional: a fun, s’more-themed prize for the winning team