

Marshmallow Challenge

Introduction

The Marshmallow Challenge is a design exercise promoted by Tom Wujec in order to provide a quick, entertaining design experience. It is a simple process, but will provide a valuable shared experience for the students early on in the course. Please visit www.marshmallowchallenge.com for more details.

- Objective
 - Build the tallest freestanding structure as measured from the table top surface to the top of the marshmallow.
- Materials
 - 20 sticks of spaghetti per team (not angel hair spaghetti, not fettucine)
 - 1 yard of string per team (should be easily broken by hand)
 - 1 yard of masking tape per team (standard masking tape is best)
 - 1 marshmallow per team (should be standard size and squishy)
 - 1 scissors per team (if necessary)
 - 1 measuring tape for the teacher
- Rules
 - The entire marshmallow must be on top
 - The kit can be used as much or as little as desired
 - The spaghetti, string, tape can be cut as desired
 - The challenge lasts exactly 18 minutes
 - Holding onto the structure after the 18 minutes causes a disqualification
- Instructor Tips
 - Explain the rules thoroughly, many times
 - Walk around the room to observe the various ideas/designs
 - Countdown the time and display the time
 - Play music to add to the excitement of the challenge
 - Measure the structures at the end of the challenge from shortest to tallest
 - Show the Tom Wujec TED Talk (~6min) after the competition then use the following questions to prompt further discussion
 - What were the assumptions your team made at the beginning of the challenge?
 - How do you find the hidden assumptions in a design project?
 - How can we be more like kindergarteners in this class?