

# SPAGHETTI TOWER

[HTTP://SUNNYDAYSINSECONDGRADE.BLOGSPOT.COM.BR/2014/06/OUR-FIRST-STEM-CHALLENGE.HTML](http://sunnydaysinsecondgrade.blogspot.com.br/2014/06/our-first-stem-challenge.html)

**Spaghetti Tower**  
**STEM Challenge!**

- **Supplies:**
  - 20 pieces of spaghetti
  - one yard of tape
  - one yard of string
  - 1 large marshmallow
  - scissors
- **Directions:**
  - No extra supplies will be given.
  - You do not need to use all of the supplies
  - You will have exactly 18 minutes.
  - The marshmallow must be the top of the tower.
- **Directions:**
  - The tower must stand on its own to be measured.

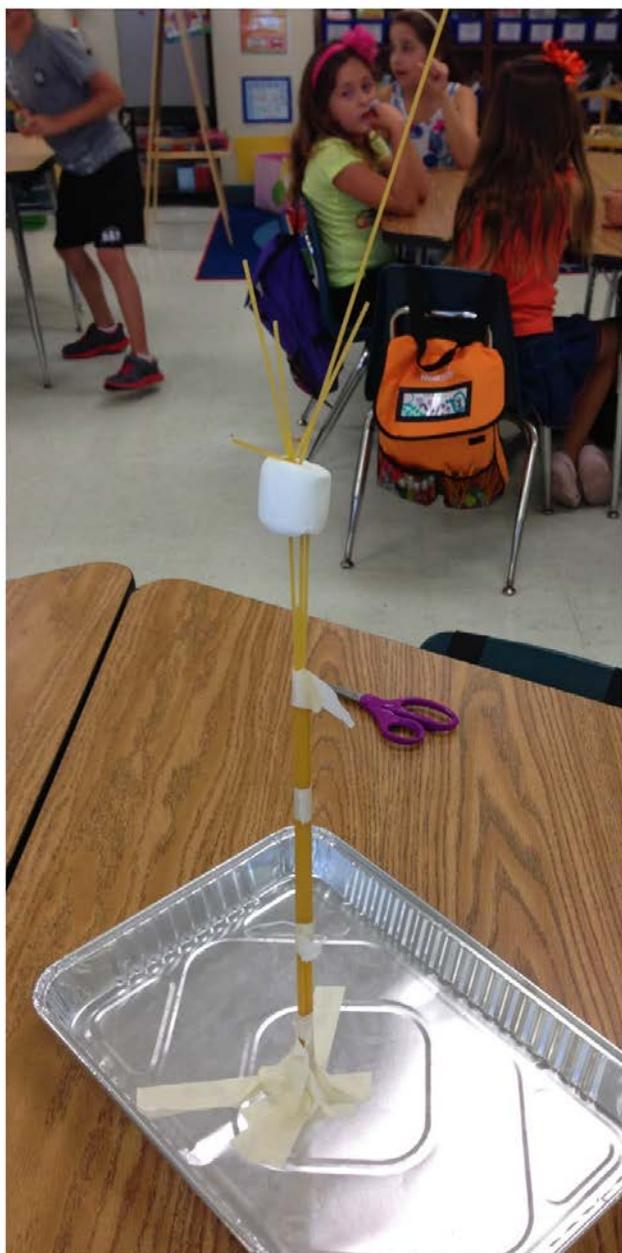
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It's as simple as that! They can do whatever they want with the supplies they are given, but they can't get any additional supplies. So if they turn all of their tape into an unusable bundle, they have to figure out a solution. The only rule is that the structure must be free standing at the end of the challenge and the marshmallow has to be supported on top. If your kids crave rules and directions like mine, this will be tough. They wanted to ask a million "what if" and "can we"

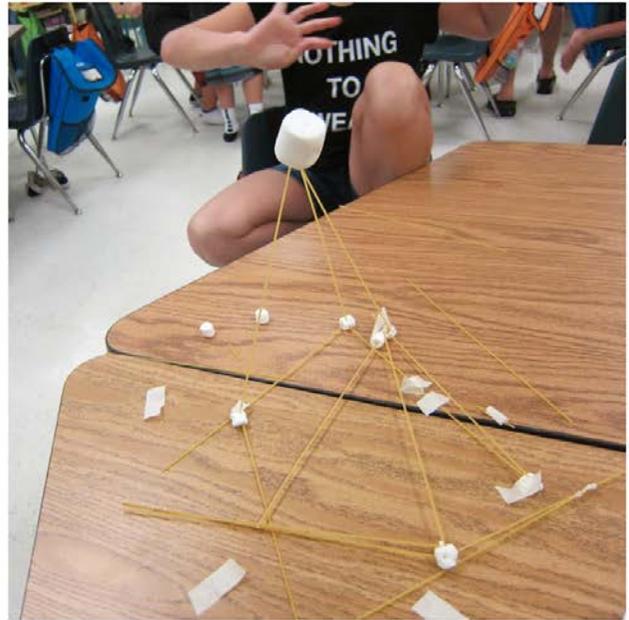
questions. That in itself was a great challenge for them to overcome. They get 18 minutes, which can either feel like an eternity or the blink of an eye depending on how effective the team collaborates together. I used a stop watch and projected it on the board so they could always see where they were with time.



At the end of the challenge, we only had two standing towers. They all tried to basically do the same thing and stick all the strands of spaghetti to the table somehow. Finally one group thought about how to use the string to secure it. I was really rather shocked at their results. I didn't see a lot of risk taking or experimenting. It made me realize just how important these types of challenges and explorations are.



So after we were done, we talked about what went right and what went wrong. We talked about other things they could try. I asked them what supply they thought was most important and which one they would double if they could. So the next day, we tried it again.



This simple activity was so amazing to watch unfold. They had to call on so many different general skills and principles and they had to do it together, which is a big focus at our school. I thought I would be impressed by their efforts on the first day, but I really wasn't. I'm so glad I gave them a second chance, because the growth and risk-taking increased dramatically over just one day. Imagine what it will be like next year when my kids get to participate in a challenge like this every week!