

Practice #12

Preparation

- Purchase large marshmallows for your team (marshmallows will not be provided in teambuilding box)
- Find the materials for the Spaghetti Tower Activity
- Become familiar with the Spaghetti Tower Activity

Beginning

5 min - Go over the plan for today's practice with the team

Explain that the team will decide on something fun to do as a team since CORE value #8 is Have Fun!. They will also build a tower, test their robot, and run through their presentation like they were presenting it to the judges.

10 min – Review CORE Value #8 – We have FUN!!!

It is certainly not required, but you could ask the team if there is something fun and simple that they would like to do as a group. Go over to someone's house for game night? Go out for pizza? Bowling? Movie? Etc... It is usually a good idea to do something fun with the group shortly before the competition to blow off some steam and allow the group to have fun together.

Team Building Activity

25 min – 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)

<h2 style="text-align: center;">Spaghetti Tower</h2> <h3 style="text-align: center;">STEM Challenge!</h3>	
○	<h3>Supplies:</h3> <ul style="list-style-type: none"> • 20 pieces of spaghetti • one yard of tape • one yard of string • 1 large marshmallow • scissors
○	<h3>Directions:</h3> <ul style="list-style-type: none"> • 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.
○	<ul style="list-style-type: none"> • The tower must stand on its own to be measured.
<small>SunnyDaysBlog.com</small>	

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.



After the building time has passed and groups have presented their towers, talk about what went right and what went wrong. What are some other ideas they could have tried? Which was the most important supply that they were given?

Main Part of Practice

65 min – Programming Robot Missions and Research Project

(30 min) Group 1 – Program Robot Mission

(35 min) Group 2 – Research Project - work in individual roles in presentation

You don't have to do it this way, but I have found it helpful to divide the group in half for this next part of the practice. One group will pick a mission to work on and continue programming. The other group will work on their research project. Half-way through the main part of the practice, switch groups.

Break – Since your groups are now spending longer periods of time on the research project and the presentation, it might be a good idea to play an active game between switching groups for 10 or so minutes.

Wrap Up

20 min – Dress Rehearsal for Research Project Presentation

Your team should know their roles well by now, and they should be completing the entire presentation in full. They should present in front of a small audience at next week's practice, so this is the final attempt to get things in order for the presentation.

****Remember** – the presentation is only 5 minutes long at the maximum