



Challenger's Morning Science Segment:

November 20, 2017

Topic: Engineering building challenge

Build: A cranberry/toothpick tower

Credit:

<http://littlebinsforlittlehands.com/thanksgiving-stem-building-cranberry-structures/>

Materials Needed: toothpicks / bag of fresh cranberries

Build a tower: This engineering challenge uses a popular holiday ingredient: cranberries! Challenge your children to see who can build the tallest freestanding tower with only two supplies—toothpicks and cranberries. Discuss whether a strong shape for toothpick building is a triangle. A triangle can be created with toothpicks by cutting a square diagonally, creating side supports or by creating a pyramid. Take this challenge to the next level and measure the tower as it grows in height. Be sure to record the results for comparison with each build.

The science: [<http://littlebinsforlittlehands.com/thanksgiving-stem-building-cranberry-structures/>]

With this engineering challenge there is no single correct answer. Sometimes engineers go through testing phases many times to accomplish a goal. This is a chance to build and fail and rebuild! The key for a tall structure is a strong base. Triangles create strength in all directions [x,y,z] and minimize weak joints that could create points of rotation.

Use finished towers as Thanksgiving centerpieces and thus STEM topics of conversation!

Upcoming at the Challenger Learning Center of Maine: Challenger's December Vacation Camp is open for registration. Camp will run Dec 27-29 and is open for grades K-5. Don't miss out on this awesome science camp! Sign up now to secure a spot. FMI- www.astronaut.org