Structural Engineering: MARSHMALLOW CHALLENGE (3-5)

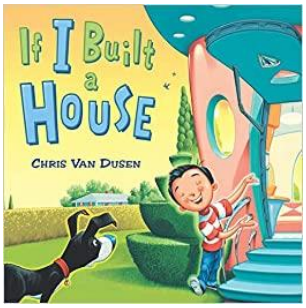
The SCIENCE of STRUCTURAL ENGINEERING:

A **structure** is the arrangement of parts into something complex – or building something out of different pieces.

An **engineer** designs, builds, or maintains anything from engines and machines to buildings.

Structural engineering is a field where people design the 'bones and muscles' that create the form and shape of structures (think bridges).

LITERACY CONNECTION:

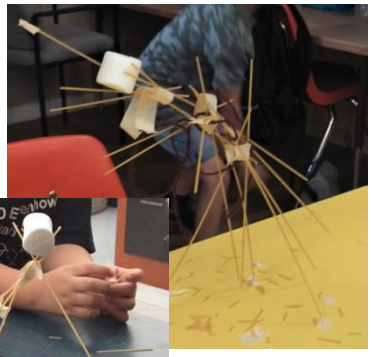


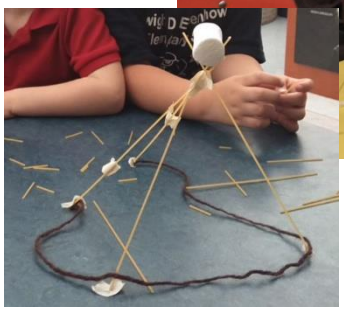
If I Built a House by Chris Van Dusen brings one boy's creative thinking into reality.

- What was your favorite room in this 'future' house?
- If you could add a room to the house, what would it be?

Don't have this book at home? Look for digital versions of the book and videos online.

ACTIVITY: MARSHMALLOW TOWER CHALLENGE





Materials: 20 pieces of uncooked spaghetti, 1 yard (3 feet) of masking tape, 1 yard (3 feet) of string or yarn, 1 marshmallow, measuring tape

This is a great FAMILY activity!

1. Take a few minutes to start planning out your design.
2. See how tall you a structure you can build using ONLY the given supplies in about 20 minutes.
3. You do NOT get extra or replacement supplies
4. The marshmallow must sit on the tower WITHOUT being damaged, tied or taped
5. Measure how high up is your marshmallow?

This challenge was created for engineers to help them learn to think creatively and work in teams. Studies show kids in kindergarten come up with some of the tallest and coolest designs!

For an example of this activity, watch the video: STEM Marshmallow Challenge

This at-home educational activity is from the Literacy Coalition of Palm Beach County's literacy-based Stories & STEM program.

Stories & STEM is made possible with support from Prime Time Palm Beach County, Inc., which receives significant funding from the Children's Services Council of Palm Beach County, Inc.

Having fun? Send pictures or video links of you and your Stories & STEM projects to csharkey@literacypbc.org