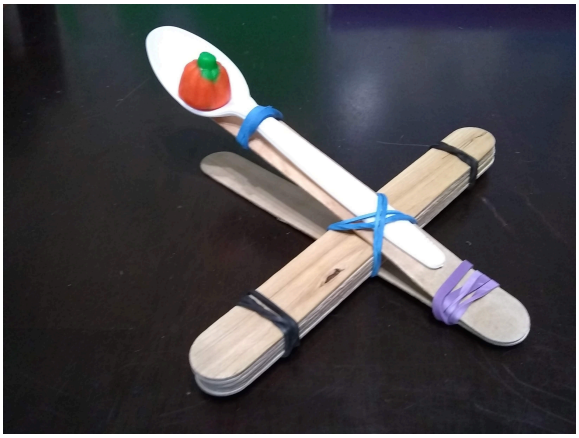
Spooktacular STEM: Pumpkin Chunkin' Challenge



Every fall, people across the country take part in a wacky sport called *Pumpkin Chunkin'*. Using giant catapults and trebuchets they see who can launch pumpkins the farthest. Some pumpkins even fly over 4,000 feet! In this Halloween STEM challenge, your family can try your own (mini-sized) version at home. Build a catapult, launch candy pumpkins, and see how far your engineering skills can take you!

Materials Needed:

- 10–12 popsicle sticks
- 5–6 rubber bands
- 1 plastic spoon
- Small candy pumpkins (or marshmallows, cotton balls, etc.)
- Plastic cup or small bowl (for the target)

Instructions:

1. Stack 8–9 popsicle sticks together and secure them tightly with rubber bands at both ends.
2. Take 2 more popsicle sticks, stack them, and wrap a rubber band around one end only.
3. Slide the stack of 8 sticks between the 2 sticks to form a "T" shape.
4. Use rubber bands to secure the "T" shape where the sticks cross.
5. Tape or rubber band the spoon to the free end of the top stick — this is your launching arm.
6. Place a candy pumpkin in the spoon.
7. Hold down the base with one hand, press the spoon back with the other, and let go!
8. Place a cup a few feet away and see if you can land your pumpkin inside.

Extension Challenge
Become a pumpkin scientist! Try changing one variable at a time to see how it affects your pumpkin's flight:

- **Angle:** Does it fly farther when you launch straight forward or at a higher angle?
- **Number of Sticks:** What happens if you make your catapult base taller by adding more popsicle sticks?
- **Pull-Back Distance:** What changes when you pull the spoon back just a little vs. all the way?

Record your results and see if you can discover the *best recipe for distance and accuracy*!