

Marshmallow Catapults

Challenge: Students will build a catapult, and use it to try and shoot marshmallows into a target.

Activity Specifics:

- Talk with students first about what a catapult is and how it is used.
 - For higher level groups discuss some basic energy concepts
 - The marshmallow has potential energy when it is resting on the spoon, but when it is shot through the air it has kinetic energy.
- Each child will work individually
- Every student will receive a kit containing all the necessary supplies:
 - 11 Popsicle Sticks
 - 1 Rubber Band
 - 1 Plastic Spoon
- The station leader will walk students through the steps to make the catapult using the supplies and glue guns.
 - For some young engineers, this will be the first time they use a hot glue gun. Make sure to briefly discuss how the glue guns work and what safety precautions all engineers have to take.
 - See next page for detailed build instructions
 - The lead teacher will go through each step with the entire group.
- Once students have completed the build, they will try and shoot marshmallows into the center target.
 - Students will also have access to markers and stickers to decorate their catapults if they wish.
- The ones that land safely in the middle container can be eaten!

BUILD INSTRUCTIONS

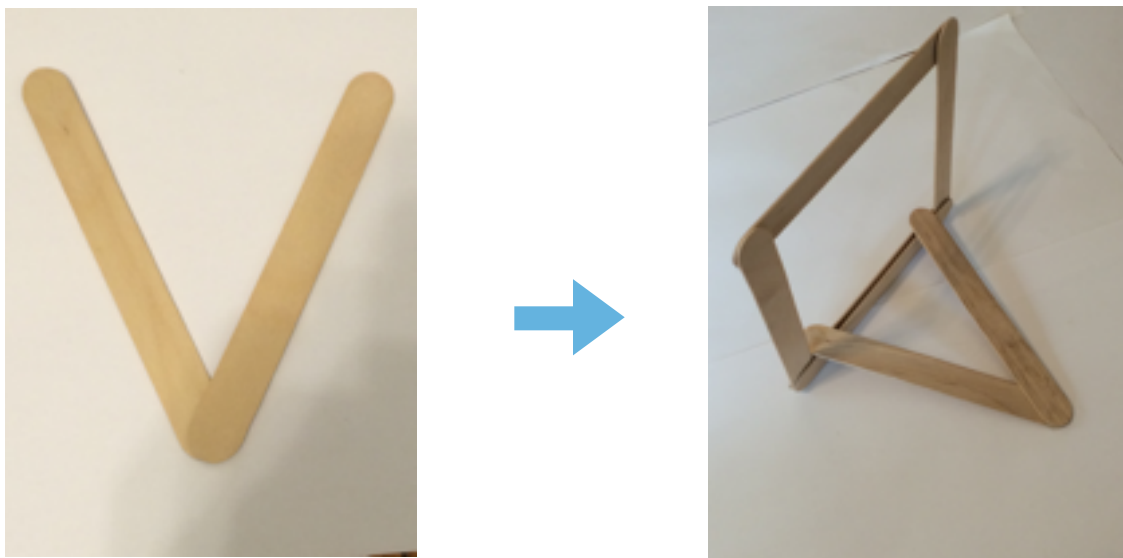
- 1) Glue two popsicle sticks horizontally across two vertical popsicle sticks



- 2) Flip square over and glue popsicle stick horizontally across the bottom of the rectangle.



- 3) Using two popsicle sticks, glue a "V" shape onto rectangle to make the catapult stand up.



- 4) Add a beam across the support "V" for stability.



- 5) Add two popsicle stick onto sides of the rectangle to add additional support.



- 6) Place Rubber band across the top of the wooden rectangle.



- 7) Glue plastic spoon onto popsicle stick.



- 8) Insert stick with spoon between the rubber band and bottom two popsicle sticks.



Start launching Marshmallows!