Activity: The Most Powerful Catapult
Focus: STE(A)M
Materials: 5 popsicle sticks, 1 small cup, 8 rubber bands, 1 pom-pom, 2 pencils
Grade Range: 6-8
Time: 20 minutes

Synopsis: Students will create their own catapult using popsicle sticks, rubber bands, and a small cup. Mentors be sure to join and ask students questions about their catapults each step of the way! Once the catapults are built, mentors will ask students a variety of questions regarding the activity and then relate this back to STE(A)M.

Instructions:
1. Mentors will begin the lesson by telling students that they get to make their very own catapult!
2. After passing out the materials, tell students that they should can attach a popsicle stick to a pencil using a rubber band – these pieces should be perpendicular. ***NOTE: Mentors, do the activity in the front of the class with the students. This will help serve as a demonstration and diffuse any confusion.***
3. Next, students will do the same to the second pencil.
4. Once students have done so, they will secure one more popsicle stick to the pencil. This will be perpendicular to the first one, too.
5. Using more rubber bands, students will attach these two perpendicular pencil constructions to each other.
6. Then, they will attach the non-eraser ends of the pencils to each other with a rubber band.
7. When students have attached the non-eraser ends together, explain to them that now they will place one more popsicle stick on the other end, securing this with rubber bands.
8. To serve as the arm of the catapult, students will put a singular popsicle stick vertically, attaching it, again, with a rubber band. However, inform students to not secure this one too tight.
9. Students will attach the small cup to the top of the last stick. Then, voila-- the catapult is finished. Have students try out the catapult using the pom-pom by placing it in the cup and then flinging it.
10. Finally, Mentors will ask students questions regarding the activity:
    - What was your favorite part about making your very own catapult?
    - What was the most difficult part of this activity?
    - If you were to do this activity again and use different materials, what would you use and why/how?