

## Christmas Catapult STEM Activity

Making a catapult is a great STEM activity for kids of all ages. A catapult uses math, engineering, and science in a very fun way.

### Supplies Needed:

- 10 Jumbo popsicle sticks
- 3 Rubber bands

### How to Build a Catapult

**Step 1:** Stack eight popsicle sticks and wind tightly at either end with rubber bands.



**Step 2:** Make 2 notches, one on either side of each popsicle stick close to the end. Adults should do this part!

**Step 3:** Push one popsicle stick through the stacked sticks so that it rests on top of the bottom stick of the stack.



**Step 4:** Place the popsicle stick on the top of the stack.



**Step 5:** Where the notches meet, wind a rubber band around the two popsicle sticks. This should not be as tight as the rubber bands on the sides of the stack. You need to be able to provide a decent amount of force to launch your item.



*Christmas*  
**CATAPULTS**  
*Holiday STEM*

**Optional Step:** You can glue a cap to the popsicle stick for easier launching.

Gather your launching items like marshmallows, pom poms, crumbled paper and test your machine.

Now add force by pushing the lever arm down so it moves around the fulcrum and let go!

You can test it further by trying different items of varying weights. See how far each travel and compare the results. Use a measuring tape and record your findings. Does one go higher than another? Which one goes the farthest distance, the shortest distance?

