

Mad Scientists- Catapults

From: <http://lisaslibraryland.blogspot.com/2014/02/mad-scientists-catapults.html>



Supplies:

- 1 box of craft sticks
- 1 bag of rubber bands
- 1 box of plastic spoons
- 1 Bin of pom poms
- 1 roll of masking tape

The program

As the kids came in, they picked up their nametag (our way to check registration) and sat at one of the tables. At each space was a *handout* with directions, 9 craft sticks, 1 plastic spoon, and 4 rubber bands. This way I wasn't running around passing out supplies. (*handout on reverse!*)

Almost everyone was able to make their own catapult. I did have to help a few kids in making an X out of the rubber bands.

Now for the fun part-target practice! I set up a bunch of masking tape targets around the room and piles of ammunition (pom poms).



The kids spent the next 45 minutes shooting their catapults. As they started sending pom poms flying, they came up with good scientific questions, such as "What is the difference between a catapult and a trebuchet?" and "Which works better- the big pom pom or the little pom pom?" Some of the kids took their original catapults apart and experimented with different designs-one was a v, one had a lot of pom poms under the rubber bands, and another added more sticks to make his middle taller. It was fun to see this science stuff in action.

With five minutes left in the program, I yelled out "Clean up time!" The kids picked up all of the pom poms that were now scattered throughout the room. Out of 25 kids, at least 20 spent an hour flinging things at targets. I was amazed at their attention span.

For more information read: <http://lisaslibraryland.blogspot.com/2014/02/mad-scientists-catapults.html>



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Background

Catapults have been used since Ancient Greece through modern times. They were originally invented to hurl things farther than a human could and made great siege weapons. This means that soldiers could wait out the other side and hurl items to weaken opposing forces.

To make your own:

1. Stack 7 craft sticks on top of each other. Add rubber bands at both ends.



2. Stack 2 craft sticks on top of each other. Add rubber bands at one end.

3. Split the two stick set so it goes over the 7 stick pile.



4. Wrap a rubber band around the middle of both so it makes a T shape.

5. Slide a plastic spoon through the middle rubber band so it lies flat against the top craft stick.



When you have finished your catapult, visit our shooting area to try it out. Are you able to hit the targets? Would heavier or lighter ammunition (pom poms) work better? Is there something that you could do to your catapult to make it launch better?