

Program Proposal (Submit to Director Prior to Scheduling Event)

Title/Appropriate Ages: Paper cannon, Ages 7-12

Date: September 30, 2015

Time: 1 hour

Anticipated Attendance: weekly STEAM event

Objective/Outcomes: As a result of participating in the program, participants will understand the dynamics of air pressure, how to create a vacuum and launch a projectile using air pressure.

Life Skills: Team work, cooperation, communication, problem solving, critical thinking

Career fields: Physics, engineering, education

Consumable cost: Less than \$2 per participant, depending on how many participants and number of items you have on hand

Consumable or reusable cost: All consumable

Tech Level (Low, Medium, High): Low

Materials/cost:

- 30 latex balloons- http://www.amazon.com/100-Latex-Balloons-Assorted-Colors/dp/B00KJHCU2U/ref=sr_1_7?ie=UTF8&qid=1433815122&sr=8-7&keywords=latex+balloons \$7
- 30 paper cups- on hand (donated)
- Pompoms- on hand
- Masking tape- on hand
- Scissors- on hand
- Vortex cannon and supplies- on hand
- Laptop, cable, projector- on hand
- <https://www.youtube.com/watch?v=4b2SV3ASUxY>

Staff Preparation Time:

- Planning Time Needed: 30 minutes
- Time to purchase supplies: 30 minutes
- Amount of Time to Preparing Supplies (Who? What? For How Long?) Jennifer- 30 minutes to make a sample

Evaluation Tool to be used:

Number of attendees and engagement of children

Procedure:

Set up tables and chairs. Have children collect one cup, two or three pompoms and one balloon each. Have scissors and masking tape on tables waiting to be used.

Show children a demonstration of our vortex canon and the video. Now that they understand the science behind why their canon will work, they will create their own version of the cannon, shooting pompoms instead of smoke.

First children will cut a small hole in the bottom of the cups. Next they will cut the neck off the balloon, stretch the balloon over the lip of the cup and tape it down (partners are recommended). Once all students are finished, they will stand behind a table and experiment to see how far their pompoms will shoot.

What do Other Staff Need to Know or Do:

They should know that I'm awesome.

Note Attached PR Checklist