



# SOCIETY OF PHYSICS STUDENTS

An organization of the American Institute of Physics

## Marsh White Award Report Template

Project Proposal Title	Phenomenal Physics Field Day
Name of School	Rhodes College
SPS Chapter Number	5940
Project Lead (name then email address)	Stefan McCarty mccsj@rhodes.edu
Additional Project Leads (two lists: names then emails)	Morgan Smathers, Zain Kinnare, Edo Draetta smamr@rhodes.edu, kinzs-15@rhodes.edu, drael-16@rhodes.edu
SPS Chapter Advisor	Brent Hoffmeister
Total Amount Received from SPS	\$300.00
Total Amount Expended from SPS	\$256.00

## Summary of Award Activities

The Rhodes College Society of Physics Students hosted a science day for high school students. The goal of this event was to spark the curiosity of the students and interest them in the sciences.

## Statement of Activity

### Overview of Award Activity

We focused on 5 fields of physics. They were Pressure, Magnetism, Forces, Resonance, and Light. The demos that we used to demonstrate those fields were the Theremin, Vanda Graff generator, fire tornado, Rueben's tube, flux trapping, thunder tube, can implosion, vacuum chamber, and several centripetal motion demos. We had stations set up where we had our SPS members giving presentations on one of the fields by using the demos as points of explanation.

We started off with a 10-15 minute introduction session, where we gave a brief overview of the event, as well answering questions to gauge the students' understanding of the material. The students who showed up were currently taking a high school physics class, so we were able to explain our demonstrations more thoroughly than we typically could for elementary school students. After this intro, we let the students walk around to the different stations and enjoy more personalized attention.

Since turnout was low, a couple of our dedicated members decided to reach out to a local comic book convention which was taking place that weekend and secured a spot for us to take a couple of our prepared demonstrations from this event to share. Five of the volunteers from SPS packed very exciting demos and drove to the convention. Due to another mishap, they arrived during the featured presentations of the afternoon and thus missed the possible science enthusiasts there. We look forward to trying again next year, though!

### Impact Assessment: How the Project/Activity/Event Promoted Interest in Physics

We have learned that we need to find a better time of year to host large outreach events and to sharpen up our communication techniques to ensure better success in the future. After talking with the six students who attended the Phenomenal Physics Field Day, we decided that the material we had prepared was more than adequate for the intended audience and did promote further interest in Physics.

**Key Metrics and Reflection**

Who was the target audience of your project?	<b>High school students</b>
How many attendees/participants were directly impacted by your project? Please describe them (for example “50 third grade students” or “25 families”).	<b>6 high school students</b>
How many students from your SPS chapter were involved in the activity, and in what capacity?	<b>14 Rhodes SPS members prepared and presented 10 minute demo presentations</b>
Was the amount of money you received from SPS sufficient to carry out the activities outlined in your proposal? Could you have used additional funding? If yes, how much would you have liked and how would the additional funding have augmented your activity?	<b>We had budgeted and received \$300 from SPS national, but due to miscommunications and some planning difficulties, we used \$256 for this event and used the remainder for our other outreach efforts including a weather balloon project with local high school students.</b>
Do you anticipate repeating this project/activity/event in the future, or having a follow-up project/activity/event? If yes, please describe.	<b>We might try this event again. More likely, though, we will use our efforts and demonstrations made for this event in other forms of outreach.</b>
What new relationships did you build through this project?	<b>We started communicating with local high schools for the first time and hope to continue to in the future.</b>
If you were to do your project again, what would you do differently?	<b>We would plan this for a less busy time of year and secure better communication with the high schools.</b>

**Press Coverage (if applicable)**

N/A

## Expenditures

### Expenditure Table

Item	Cost
Acetone	\$36
Liquid Nitrogen	\$40
Propane	\$50
Gas/Transportation	\$30
SD Card	\$21
Small Vacuum Bell	\$75
Marshmallow Peeps	\$4
<b>Total of Expenses</b>	<b>\$256</b>

## Activity Photos

Please include captions and credits for each photo. By including photos below, you are giving SPS and the American Institute of Physics permission to use these photos in their online and printed publications.



Memphis high school students observing a flux trapping demo