SOCIETY OF PHYSICS STUDENTS
An organization of the American Institute of Physics

Marsh White Award Report Template

Instructions: Please complete each section after reading the purple text describing what should be in that section. Then delete the purple text.

Project Proposal Title	Promoting Physics to the Community
Name of School	University of Southern Mississippi
SPS Chapter Number	6626
Project Lead (name then email address)	Andrew Giovengo Andrew.Giovengo@usm.edu
Total Amount Received from SPS	$500.00
Total Amount Expended from SPS	$500.00

Summary of Award Activities

The SPS chapter from the University of Southern Mississippi participated in Hattiesburg's annual Hubfest this year. Our chapter registered a booth, which was later managed by six of our chapter members during the festival. These members conducted physics demonstrations to a fraction of the total 30,000 attendees. The demonstrations were designed to engage audience members and spark an interest in physics early on to our younger viewers. These demonstrations involved topics including optics, thermodynamics and energy.

Statement of Activity

The entire Statement of Activities should be no more than 3 pages, and organized as follows.

Overview of Award Activity

- Our project was managed under a tent at Hubfest, a festival hosted by the city of Hattiesburg. The SPS members managing our tent were wearing matching T-shirts and executing physics demonstrations to the festival goers.
- Our project accomplished its initial goal of promoting physics to the general public.
- Our demonstrations engaged the younger audience members and exposed them to fascinating physical phenomena that fall under our area of study.
- Our demos also attracted college students. This could potentially influence them to take a physics class, pick up a minor in physics, or possibly even change their major.
- An estimated 1,500 people viewed our demonstrations.
- This specific project fit in with other projects our chapter has done in multiple ways. First, our goal has stayed the same throughout every project, which is to simply promote physics. We also used some of our former demonstrations from our middle and elementary school outreach events.

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

- Project goals
    1. Engage audience members- The marshmallows dipped in liquid nitrogen were an excellent way to draw in audience members and keep them interested in what our lecturers had to say.
    2. Speak to over 1000 festival goers- We spoke to around 1,500 festival goers.
    3. Thoroughly explain our demos- Each member was briefed on each demonstration beforehand and knew how to explain the demos in layman's terms to the general public.
    4. To promote our chapter- by speaking to so many people we had opportunities to meet high school teachers from nearby, which could yield connections for later outreach events.

Key Metrics and Reflection

Please answer the questions below. Please indicate if a question is not applicable to your project.

Who was the target audience of your project?	The general population of Hattiesburg, particularly students in kindergarten through twelfth grade.
How many attendees/participants were directly impacted by your project? Please describe them (for example “50 third grade students” or “25 families”).	1,500 festival attendees
How many students from your SPS chapter were involved in the activity, and in what capacity?	Six students managed the booth and additional members were involved in preparation.
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?	Yes, the amount we received was sufficient to carry out our proposal.
Do you anticipate repeating this project/activity/event in the future, or having a follow-up project/activity/event? If yes, please describe.	Yes. Hubfest is an annual festival hosted by the city of Hattiesburg. We plan on attending every year.
What new relationships did you build through this project?	NA
If you were to do your project again, what would you do differently?	We would like to have more officers present for this event. Hubfest was scheduled on the same day as the Zone Ten meeting this year, so all officers were busy that weekend.

Press Coverage (if applicable)

If your project received press coverage, please include references or URLs to the coverage. When possible, attach copies of articles to this report.

Expenditures

Please provide a brief explanation of your expenses. Include a written description of your expenditures below, those covered by your SPS funding and by other funding sources, and then fill in the table with the name and cost of each item purchased with your SPS funding. Add rows as needed.

Expenditure Table

Item	Please explain how this expense relates to your project as outlined in your proposal.	Cost
Balloons	We put the balloons in liquid nitrogen to demonstrate what happens to a gas when it is cooled. We also used lasers to pop the balloons.	$15
100 mW Laser	We used this for demonstrations in Optics. This was also used to pop balloons.	$35
Liquid Nitrogen	We used 25 liters of liquid nitrogen. We used it to cool different things like flowers and marshmallows.	(ultimately paid by Dept., not included in total. $60)
Double Axis Diffraction Glasses	These glasses break up white light and are a gateway to a lesson on light.	$20
Batteries	The lasers we used to pop the balloons are powered by batteries.	$25
Marshmallows	The marshmallows attracted a younger crowd and helped keep them engaged.	$15
Flowers	The flowers were dipped in the liquid nitrogen and crushed.	$20
Produce	We cooled products like bananas and apples and shattered them on the table. This attracted viewers of all age.	$20
Hand Sanitizers	We distributed marshmallows to children so it is important to keep our hands clean in order to prevent spreading germs.	$5
Paper Towels	A lot of food items melted after they were dipped in the liquid nitrogen and the paper towels kept our demonstration area clean.	$10
Wet Wipes	We used these for the same reason we used the paper towels.	$5
Water	The event was held in the middle of the day with high temperatures. We used	$20

	water to keep our demonstrators hydrated and cool.	
Hubfest Registration	This was the cost to rent a booth.	$200
Racquetballs	This was also another item that we dip in the liquid nitrogen. When we threw the balls onto the ground they shattered like glass.	$30
T-Shirts	This indicated our affiliation to the public and helped encourage participation from our society members.	$80
	Total of Expenses	$500

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.

Note that you will be encouraged to upload high resolution copies of your best photos directly to SPS via the FluidReview site when you submit your report.

Hiroka, Michelle, and Dr. Scott teaching at Hubfest


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If you have any questions, please contact the SPS National Office Staff
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