



SOCIETY OF PHYSICS STUDENTS

An organization of the American Institute of Physics

Future Faces of Physics Award Proposal

Project Proposal Title	Cesar Chavez Pen Pal Program
Name of School	University of Michigan
SPS Chapter Number	4267
Total Amount Requested	\$300.00

Abstract

The University of Michigan's SPS chapter has started a pen pal program with Cesar Chavez Middle school, an underprivileged school in Detroit, to promote physics to 99 sixth graders. Proposed activities include weekly pen pal letters, demo shows, and a campus visit.

Proposal Statement

Overview of Proposed Project/Activity/Event

For the past few years, our SPS chapter has participated in pen pal programs not only to promote physics to underrepresented schools in the greater Detroit area, but also to give the kids a chance to connect with college students. In the past, our chapter has worked with the Detroit Partnership to make this program happen. Due to the overwhelming support within our chapter last year, we decided to start our own program this year. Our chapter has partnered up with a 6th grade teacher, Mr. Brian Wagner, at Cesar Chavez Academy Middle School to have a direct partnership with all the students in his classes. In all, SPS members will be writing to 99 kids, with each 6th grader receiving a personalized letter every other week.

In previous years we've noticed that the kids at the participating schools live in communities where dropping out of high school and getting minimum wage jobs is a common thing to do. By having college students interact with these kids and sharing our enthusiasm for physics, we hope to convince the kids that college is accessible to them, even if that is not the norm in their community. Furthermore, by bringing demos to Cesar Chavez, we hope to instill in the kids a level of physics enthusiasm that rivals our own. Lastly, we would like to bring all 99 kids to campus to give them a tour of our excellent facilities to deepen their appreciation of both physics and the opportunities brought about by going to college. Such a field trip would be topped off with freshly made liquid nitrogen ice cream, a favorite among everyone!

How Proposed Activity Promotes Physics Across Cultures

Many of the kids at Cesar Chavez are of Latin American descent, an underrepresented group in physics. In addition, by also getting girls involved we hope to help out the female minority as well. Given their parents' backgrounds and jobs (many are minimum wage factory workers), these kids are never officially introduced to physics. Although physics happens around them all the time, they do not recognize it and cannot appreciate its beauty and elegance. Through both the pen pal letters and planned excursions, we hope to introduce the kids to physics at a level they can understand and appreciate. We hope that one day, some of these kids help fill the void of underrepresented minorities in physics.

Plan for Carrying Out Proposed Project/Activity/Event

- SPS president Nico Wagner will be in charge of collecting and distributing letters at U of M as well as serving as liaison to Cesar Chavez. Co-outreach chairs Yunjie Yang and Caleb Zerger will help organize demo trips and the campus visit.
- At Cesar Chavez, Mr. Wagner will be in charge of the distribution and collection of letters.
- 62 total SPS members will receive and write a total of 99 letters on a biweekly basis. Time permitting, these members will also join Nico, Yunjie, and Caleb for demo trips and for the campus visit.
- The pen pal program, including the demo trips and campus visit, has been approved by Mr. Wagner in its entirety.

Project/Activity/Event Timeline

- June, 2013- Planning for this event began as details were worked out between Nico Wagner and Mr. Wagner at Cesar Chavez.
- September, 2013- SPS members were recruited to serve as pen pals.
- October 8, 2013- The first set of letters was written by SPS volunteers and mailed to Cesar Chavez.
- Late November/early December 2013- First demo trip to Cesar Chavez.
- Middle of February, 2014- Second demo trip to Cesar Chavez.
- Late March/early April, 2014- Kids come for campus visit.

Activity Evaluation Plan

Progress will be monitored by keeping track of participation by students at Cesar Chavez. Mr. Wagner will report to us regularly about feedback received from his students. Active participation and engagement in demo trips will also be used to gauge the success of our program. Historically, the kids have been very excited about receiving pen pal letters and we have never not seen a young student get excited about physics demos. We also have confirmation that the kids were in fact excited about receiving their first letters on October 10th.

Budget Justification

- \$100 for mailing letters to and from Detroit. At \$5.60 per set of letters, this is the most cost effective way to make the pen pal program happen.
- \$100 in transportation costs to get the kids to campus for the campus visit. Without this visit, the students will not have a chance to tour our facilities and get a glimpse of what college life is.
- \$50 for campus visit supplies. This money will go toward the ingredients of liquid nitrogen ice cream, bowls, spoons, etc. as well as any other activity we may need supplies for.
- \$50 for demo trip supplies. Specific plans for these trips have yet been made, but from previous experience we have seen that all demo shows require at least some supplies that cannot be reused, such as shattered racquet balls that had been cryogenically frozen, dry ice, etc.

Any additional costs incurred by this program will be covered by our general budget/the physics department.