

Marsh White Report
Brigham Young University
June 2006

One of the main purposes of the SPS chapter at Brigham Young University (BYU) is to teach k-12 students basic physics principles and help interested young scientists develop a love for the physical sciences. Our chapter has had a strong outreach program in the past years, visiting several k-12 schools in the surrounding area each school year. SPS members volunteer to visit classrooms and assemblies at various schools with physics demos and explain the physics behind them to the kids. While the program has been largely a success, we have used the same set of demos each year. Many teachers have requested that we do new demos, specifically demos that fit better with their school curriculum. Also we have had an increasing number of invitations to present in school assemblies, and the majority of our old demos don't work well with large groups. The Marsh White award allowed us to create new physics demos, especially ones that fit better in the curriculum and also ones that work well for large crowds and assemblies.

The newly constructed demos and the price that was needed for each one are as follows:

1. Bed of Nails with sledge hammer and cinder blocks - \$115
2. Air Vortex Cannon with fog machine - \$55
3. Laser pointers with Convex and Concave lenses - \$35
4. PVC Pipe Choir - \$25
5. Liquid Nitrogen with plastic toys - \$15 (we already owned a dewar)

Total - \$250

At the beginning of the school year, a letter was sent to all of the surrounding Elementary and Middle Schools in the area, informing them about the Outreach Program. The schools or teachers then contacted the SPS officers in order to schedule an outreach for their school or class. Thanks to all of the physics students who donated their time throughout the semester, and for the transportation made

possible by the BYU physics department, only one request for an outreach during the school year had to be turned down due to scheduling difficulties. About 28 different outreaches were done during the school year for several schools in the surrounding area, including an outreach done at the Central Utah Science & Engineering fair for Elementary and Middle School students. A partial list of the visited schools/orgainzations follows:

Grand View Elementary	Northridge Elementary	Bonneville Elementary
Rock Canyon Elementary	BYU 6 th Grade Mentors	Central Elementary
Pleasant Grove Jr. High	Centennial Middle School	Larson Elementary
Adventure Time day care	Grovecrest Elementary	Foothill Elementary
Westmoore Elementary	Provost Elementary	Edgemont Elementary
Provo city Library	Timpanogos Elementary	
American Leadership Academy Elementary		
Central Utah Science & Engineering Fair		

Both the SPS students and the outreached students and teachers enjoyed the new demos and the learning that naturally followed. Many thank you cards were received and several teachers plan on having the SPS students visit again next year.

Here are just a few of the comments teachers made:

“I just wanted to let you know what an incredible time our 5th graders had today! The presentation on was educational and entertaining. The kids (and teachers) loved the demonstrations. Thanks so much for being willing to come to the schools and to do presentations. You're wonderful!”
-Linda Nielsen, Grandview Elem.

“You guys were fantastic.”
-Sam Wrencher,
Headmaster of Bonneville's Hogwarts School of Science and Magic

“In spite of having to deal with a room full of know-it-all 6th graders, [you] did a wonderful job. Thanks a 1,000,000!”
-Laura Wadley, Provo City Library

“Thank you for the demonstration you did. I could tell the students enjoyed it and I'm glad it was so educational for them too. Thanks.”
-Tyler Mayo, BYU 6th Grade Mentors

The BYU Outreach Program for this year was a tremendous success thanks in a large part to the Marsh White Grant. And the outreaches in coming years will continue to enjoy the new demos.



