

Marsh W. White Award Final Report
'Physics Focus on Mississippi'
Mississippi State University

Project Summary

The Society of Physics Students at Mississippi State University (MSU) was awarded \$279 for the Marsh Award at the beginning of 2006. This funding was requested so that our SPS chapter could develop a stronger physics outreach program that would focus on resource-poor high schools in east-central Mississippi, in an area surrounding MSU. Our goals were to bring these high school physics classes unique demonstrations they had most likely never seen and to strengthen the level of interest and excitement in physics in these classrooms.

After receiving the Marsh Award, our SPS members quickly composed a list of 40 different physics demonstrations that we would be willing to bring on the road to various high schools. Covering almost all areas of physics, these demos ranged from the typical Van de Graaff machine and moment of inertia demonstrations to the zany 'Flying Mirror Trick' and the 'Electric Pickle.' Once we had decided upon the demos we would be willing to travel with, we sent informational packets to high school physics teachers in 10 different resource-poor schools in the area, informing them that we were offering this free service of performing 10 physics demos for their classes (they were asked to choose 10 demonstrations from the list of 40).

Most unfortunately, out of the 10 high schools we contacted, only four responded and agreed to have us come. Although we were somewhat disappointed by the low response number, our SPS members were quite thrilled to visit the schools we did. The level of positive response we received from each school we visited was almost incomprehensible. The physics teachers were excited to finally see some of the demos they had dreamed about buying for their classrooms, and the students were equally excited to see each

demo being performed (they were also excited about getting a ‘free day’ from lecture, of course). Pictures from some of our visits are posted at the end of this report.

Initially, we had planned to use our Marsh Award fund to visit nine schools. However, since we only visited four schools this semester and have some of the fund remaining, we plan to continue visiting high schools in the fall semester using the rest of the Marsh Award fund we received.

Budget Information

Marsh W. White Award	+ \$279.00
Informational Teacher Packets	- \$15.00
Gasoline	- \$30.00
Liquid Nitrogen	- \$40.00
Racquetballs	- \$10.00
Flowers (for freezing)	- \$10.00
Fruit (for freezing)	- \$10.00
Balloons	- \$5.00
BALANCE	+ \$159.00

Photographs from Our Outreach Program



A group of students views the Galilean Moons with their own eyes for the first time.



These students eagerly wait for the jumping ring to spring into the air.



A high school science teacher attempts to fly.



A student watches in amazement as we pour liquid nitrogen for the next demonstration.