

# School of Math, Science, and Engineering



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## 2009 Gateway to Engineering Summer Camp

Wando High School's 3rd annual Gateway to Engineering summer camp took place this year from July 28th to 31st. Twenty seven rising 9th grade girls from Mount Pleasant attended. The entire week centered around renewable and-sustainable energy projects.

Led by teachers Joe Kutcher and David Roemer, with assistance from upperclassmen Taylor Santos, Jen Kennedy and Anderson Wiksell, the class immersed themselves in a variety of "green" projects:

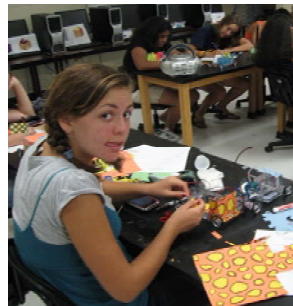
- ◆ Students designed and built wind turbines, which they used to light LEDs and pump water up a cylinder.
- ◆ The girls built solar panel arrays with photo-voltaic cells. Using lamp light and sunlight, they powered lights, buzzers and motors. The solar powered crabs and monkeys were a highlight of the week.
- ◆ The class also built cars



Check out our future engineers from the 2009 Gateway to Engineering Camp with their really cool safety glasses!

that were powered by hydrogen fuel cells. After building and testing the cars, races were conducted to find the fastest car. Of course, there had to be a design competition.

Here is Emily Ward putting the finishing touches on her design.



### UPCOMING EVENTS:

- *Math, Science and Engineering Business Alliance Board Meeting*, @ Dec 1 5:30 pm —Refreshments 6 pm Meeting
- *Engineering Club Meeting*, @ 7:50 am —E106 Sponsors: David Roemer
- *Kayak Club Meetings*: Nov. 2,16,30th@3:45pm B 201 Sponsors: Jessica Herbert & Michele Powell
- *Math Team Sponsors*: Ted Guerard, Larry Crosswell, & Erin Crosswell
- *Marine Science Club Meeting*, @ 7:45 am— F204 Sponsor: Connie Leverett
- *Wando Wildlife Water Warriors* @ B 224 Sponsor: Diane Girardeau

- ◆ **BP Grant winner: David Roemer \$5,000 Engineering Summer camp!**
- ◆ **Environmental Science 2nd block class received \$500 Project Impact grant**
- ◆ **Donor's Choose Grant Fall 2009 recipient: Ms. Powell**

## MSE Spanish Highlights:

Mrs. Camarillo's Spanish class is a part of the Math Science and Engineering school of study.

She incorporates more than the linguistics and culture of the Spanish language; the students brush up on basic math skills using numbers in Spanish.

Here students review addition, subtraction, and word problem solving skills while comparing the math systems in the United States to ones in Spanish speaking countries, all while learning the Spanish language.

As the semester progresses students will learn metric systems when studying food units, they will study the ecosystems and climates of Spanish speaking countries, and form linguistic sentence structures using mathematical and language art skills.

Most of these lessons include real-life situations that students can use, and now are able to use in two different languages. ¡Que bien!



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#### Architecture Cluster

- ◆ Architecture Design

#### Agriculture, Food and Natural Resources Cluster

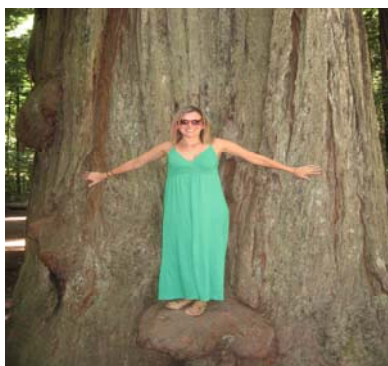
- ◆ Environment and Natural Resources

#### Science, Technology, Engineering and Mathematics Cluster

- ◆ Engineering
- ◆ Mathematics
- ◆ Science

#### Transportation, Distribution and Logistics Cluster

- ◆ Logistics Planning and Management



#### Lisa Velick

- ◆ Born & raised in Grand Rapids, MI
- ◆ Graduated from Western Michigan University as English Major
- ◆ Moved to SC in 2007 for job opportunity at Wando High School
- ◆ Teaches English 2,3 & Film Appreciation
- ◆ Hobbies: Reading, movies, traveling and spending time in nature
- ◆ Favorite Authors: Paolo Coelho, F. Scott Fitzgerald & Stephanie Meyer

## Highlights of the Quarter: Environmental Science



Ms. Powell's Environmental Science 1st and 2nd Block Classes Fall 2009

The Fall 2009 Environmental Science classes visited the Moncton Waste to Energy Facility in September while studying Municipal Solid Waste issues in class. They also toured the Charleston County Recycling Center where the plan is to increase the current recycling by 10% of the Charleston residents to 40% when the Moncton Facility is shut down December 31, 2009. Currently 80-90% of Charleston County's solid waste is turned into electricity. Beginning in Jan. 2010, all of Charleston County's solid waste will go to Bees Ferry Landfill so recycling efforts will be encouraged. In October, the environmental classes visited Fisher Recycling which currently has sold franchises in 30 states to begin similar recycling programs. Chris Fisher who began the company now uses the crush glass from bottles to make custom countertops, sinks and decorative tiles for homeowners. Half-Moon Outfitters distribution center was toured because Half-Moon is currently the only Platinum Award building in South Carolina. They have incorporated increase insulation, overhead to block summer sun, solar panels, rain cisterns and other methods to win this award. Beezer Molton, CEO, surprised the students with a quiz at the end of his tour giving tee shirts for correct answers!

## Focus on Faculty: Michele Powell

Dean of Math, Science and Engineering, Michele Powell is shown with the faculty of Math, Science and Engineering School of Study (holding the poster!)

Ms. Powell has taught at Wando High for six years after retiring from Myrtle Beach High where she taught AP Biology, Research Techniques, Biology I and II. She was also Department Chair.

Currently she teaches Environmental Science and Biotechnical Engineering. Her Environmental Science classes are involved with Service Learning Projects this semester including recycling and environmental awareness project which will be presented to Laurel Hill Primary school students in December.

Wando High students will present skits dealing with important issues such as water quality, recycling and protecting storm drains. Three classes at Laurel Hill will be given tee shirts which are green in color and say Go Green Team. Funding for this project is from a grant from Project Impact of Charleston County, BP Cooper



River and several local donations.

Ms. Powell has been active in state and national organizations. She is Past President for the South Carolina Association of Biology Teachers and awarded the Outstanding Biology Teacher of South Carolina in 1986. She was Past President of South Carolina

Science Council and awarded the Presidential Award for Excellence in Science Teaching in 1996 for South Carolina.

Her daughter, Jennifer Morrow, teaches at Laurel Hill Primary. Her youngest daughter, Kelsey Powell teaches in Columbia, SC.