

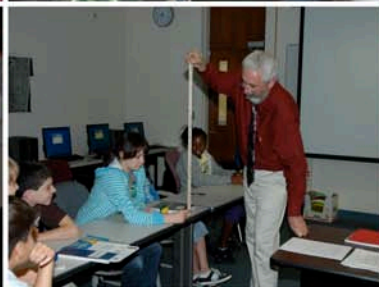
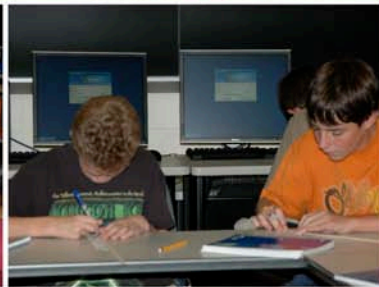


Introduction to Experimental Design

The Stars Challenge at Monmouth University



The Stars Challenge *Introduction to Experimental Design* at Monmouth University Fall 2007



We began with the "Catch the Falling Dollar Bill" challenge. Reaction time was quantified using the drop stick that taught data analysis and experimental design diagrams.



I am going to catch this!



Oops.





Students participated in Kerry's reaction time experiment before and after exercise. They used Science Buddies to determine their areas of research interest.



Analyzing the time required to learn how to juggle is one of Mr. Roche's long term experiments. This was the first class where some students learned to juggle!

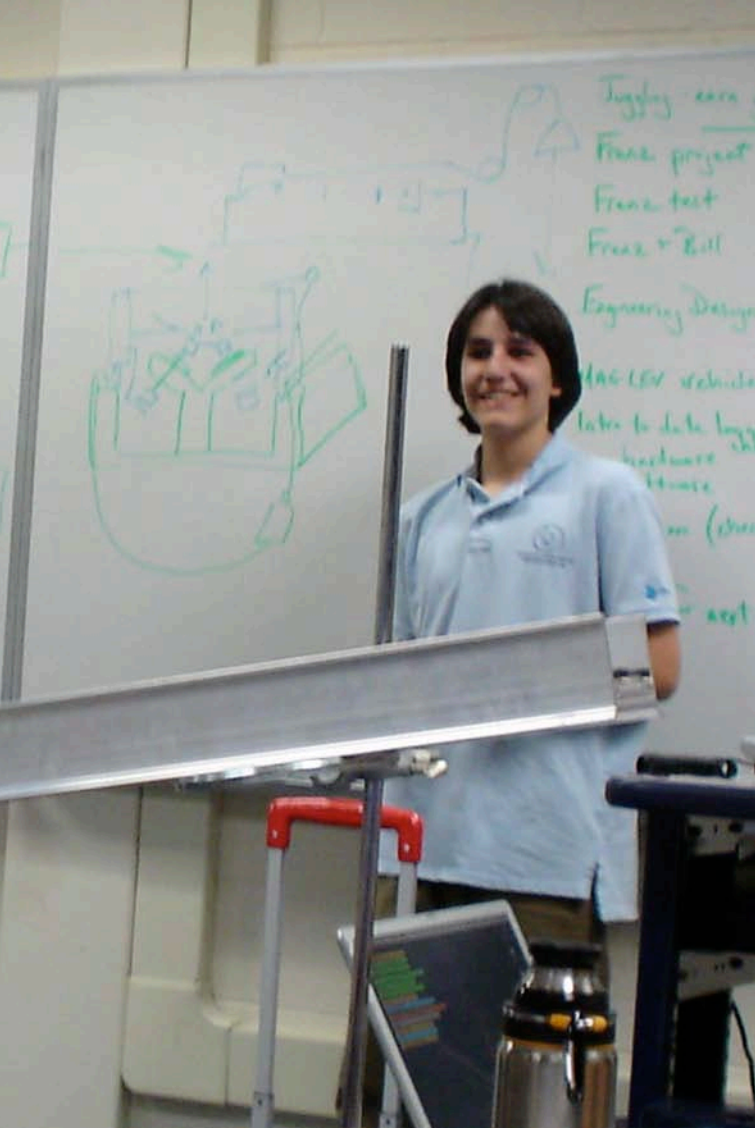


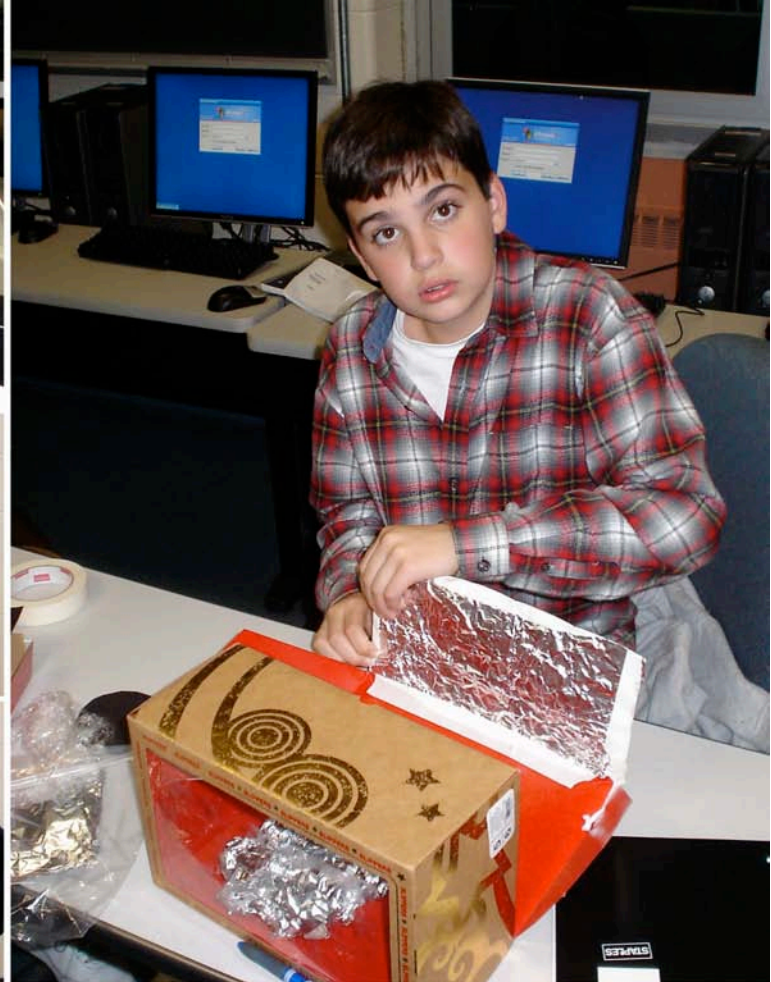
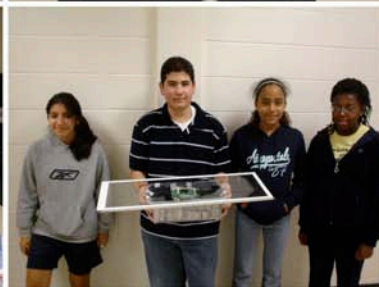
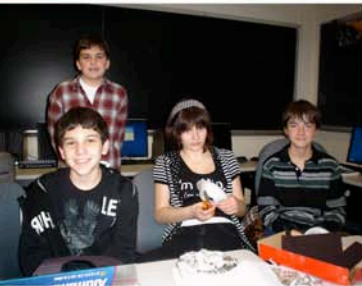
Students were perplexed and intrigued by Ms. Lyon's surface tension experiment. While it seemed like magic, it was really science!



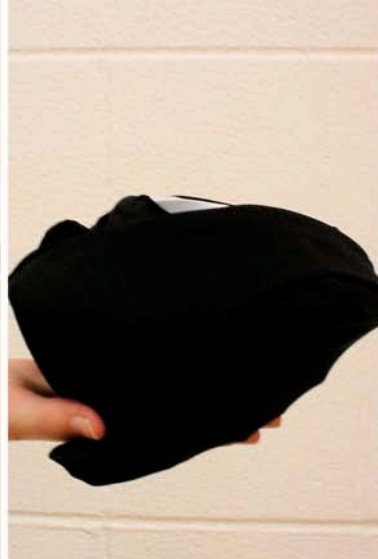


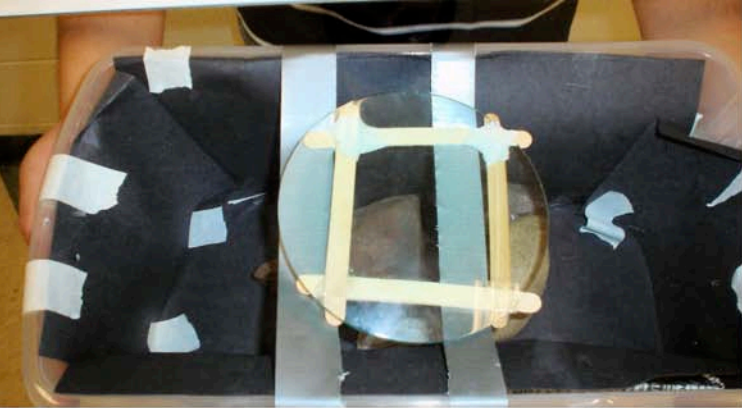
Franz explained his mag-lev experiment and the students built and raced their own mag-lev cars.



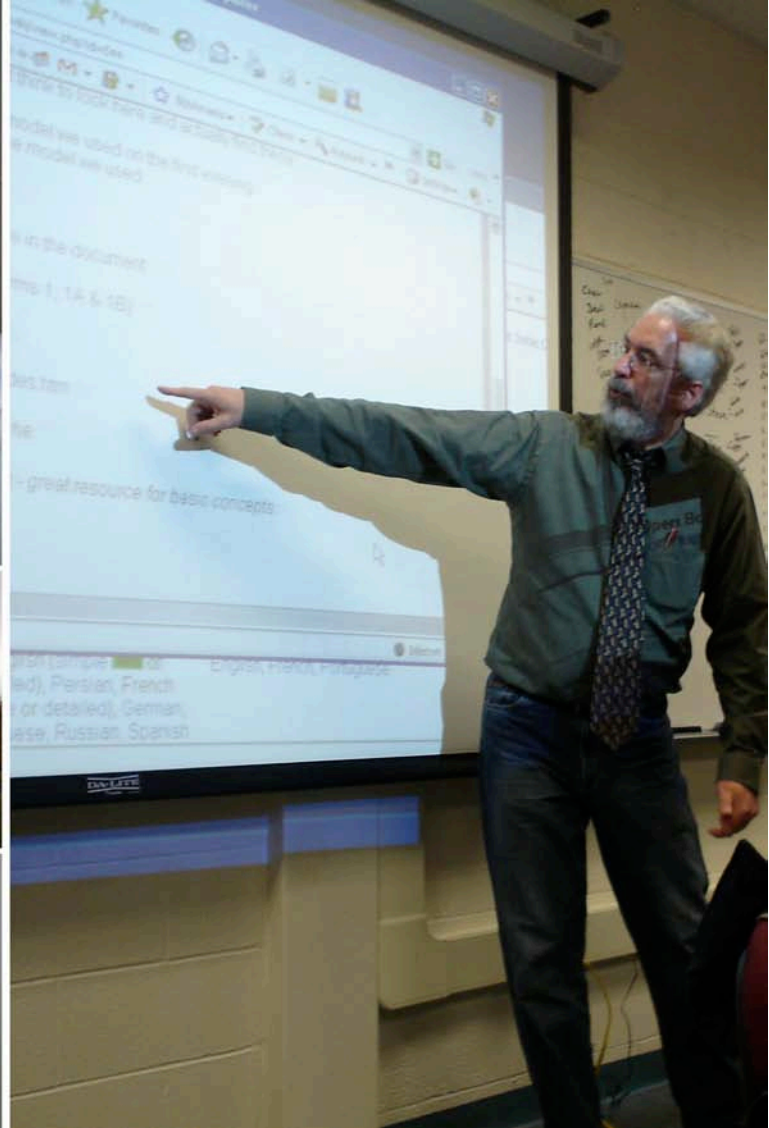
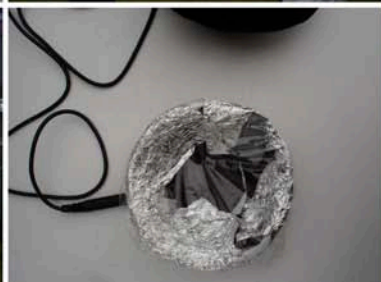


Students constructed their solar ovens after a discussion that showed that almost all energy sources can be traced back to sunlight.





Mr. Roche and Abe setup and tested the solar ovens at High Technology High School. Students analyzed the resulting temperature data and re-designed their ovens.





Visiting High Technology High School is always a highlight. Students participated in an experiment to determine the effects of talking on a cell phone on their "driving".





RESEARCH LAB 1

EXIT



