



SENIOR SCIENCE SOCIETY NEWSLETTER

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NEXT GENERAL MEETING

Monday, 18 November 2013; Harford Comm. College
Chesapeake Dining Hall South at 7:00 PM

Our guest speaker will be Harry Salem, Ph.D., ATS
Chief Scientist for Life Sciences at ECBC

The topic is In Vitro and Stem Cell Technologies
to Predict Human Toxicity and Pharmacology



The "Big Check" Picture, as the SSS' STEM scholarships are awarded at August Meeting

SEEING THE LIGHT (or at least utilizing it)

The STEM and Beyond's Student STEM Leadership Committee with support from Harford County Public Schools launched a STEM project at Bel Air Middle Schools this Spring. Students met after school to assemble and (partially) design a model automobile that was built over a period of several weeks. The car consisted of wheels, a carriage, an electric motor, and a solar panel for power to the vehicle.

About 20 students participated in the initial project. They formed teams of 2 to 4 people and had available the option of following directions, as given in the kit, or modifying the design to experiment with design changes that might enhance the performance of the vehicle. Mrs. Kathleen Hofstra (BAMS Seventh Grade Science teacher) led the BAMS program and Dr. Ann Bizzano (parent STEM Coordinator) assisted in this after school event.



The SSS contributed to the effort by providing a scientist (Dr. Rob Lieb) to assist in answering questions regarding the design changes and their likely effects. The group met about six weeks during the design process, and SSS was there to help.

The cars were raced in June, and the effects of the design were demonstrated. Some cars travelled fast and true, and others struggled to make progress along the course.

One of the elements missing from this series of activities was the initial testing and redesign of the model. This important engineering feature will be incorporated into the second Junior Solar Sprint event to be offered to Magnolia Middle School in the fall.

UPCOMING EVENTS

The 2012-2013 program year was very successful at bringing engineering, science and mathematics to elementary and middle schools. For the 2013-2014 the SSS is planning to continue to bring our demonstration modules and learning activities to the schools of Harford County. This year it appears to be even a greater demand than last year for our assistance and expertise. Coming up in the next seven weeks are:

- STEM Open House at the John Carroll School involving the JCHS STEM Club assisting the SSS in presenting to Middle School Students (Bruce Burns)
- STEM Presentations at Bel Air Middle School during Oct - Nov (Ray Mackay & Rob Lieb)
- Magnolia Middle School STEM Club and the Junior Solar Sprint Car Design Project (Rob Lieb)
- Patterson Mill High School Anthropomorphic Data Measurement and Utilization in Aircraft Cockpit Design - November (Clarence Fry)

If you wish to participate in any of the above event or develop a new module, please contact the chair of the Recon/Event Committee, Ed Schmidt at bigedschmidt@netzero.net