

# Center for Educational Outreach Newsletter

Issue: #1

Fall, 2012

Center for Educational Outreach  
JOHNS HOPKINS UNIVERSITY

WHITING SCHOOL  
OF ENGINEERING



Dear Margaret,

Welcome to the new CEO Newsletter! We are excited to share all the great events and opportunities available around the greater Baltimore City area. This newsletter is written for STEM teachers and Out of School Time professionals working with K-12 students. Our hope is to provide information for both you and your students.

Please make sure to answer our survey so we can make this newsletter even better.

## Survey

### What do you want to read?

Please take a moment to fill out our survey about what you would like to see in the CEO newsletter.

[Link to the Survey](#)



### Who We Are

The Center for Educational Outreach is part of the Whiting School of Engineering at Johns Hopkins University. Our mission is to inspire and prepare youth, particularly those underrepresented in STEM, to pursue STEM education and careers.

## News



### Robots Everywhere

On Wednesday, August 1st over 200 middle school students from Baltimore City Public Schools competed at the Robotics Olympiad. The Olympiad was the conclusion to the Summer Jump "Create the Solution" Robotics Program, a five-week summer course where students strengthened their math and science skills while designing and creating VEX Robots.

[Learn More...](#)



### InnoWorks 2012

During the week of August 6th, InnoWorks hosted their second annual summer camp for Baltimore youth. The theme for this year's camp focused on the human senses and interpretation and investigating how the body understands and processes the world around it. Activities ranged from creative experiments like *Egg Drop Challenge*, where students created compartments to safely house their eggs during a 20ft. drop to quantitative experiments like *The Speed of Sound*,

where students calculated how fast sound travels using just a stopwatch, an air horn, and teamwork. During "Microscope Fun" students used microscopes to visualize cells from their very own cheeks! Everyone had a great time, and we're looking forward to next year's program!



### Engineering Innovation 2012

We had another successful year of Engineering Innovation! A total of 270 students participated at 11 sites across the country (5 in Maryland, 1 in Pennsylvania, 1 in the District of Columbia, and 3 sites in California).

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Students learned about electrical engineering, chemical engineering, materials science, mechanical engineering, and robotics by participating in both classroom and laboratory activities. They designed a robotic car, tested material properties of spaghetti, constructed a mousetrap, tested heat transfer efficiencies, and designed and constructed bridges made of spaghetti. More than 85 spaghetti bridges were tested. The best bridge that met all the design criteria held 48 kg, about 190 times its weight of 250 grams!

[Learn more about Engineering Innovation](#)

## Events and Opportunities for Students

### Dive into BioEYES

Project BioEYES is getting ready for the 2012-2013 school year! In this weeklong science program provided by the Carnegie Institution and the Johns Hopkins School of Education, students deal with a live model organism: the zebrafish. These small tropical fish produce embryos in the classroom that students will raise for the rest of the week. By Friday, they hatch out as free-swimming larvae with bodies clear enough that students can observe their heart beating and their blood flowing using the stereomicroscopes we provide. The program is designed for grades 2, 5, 7, and high school and is available only to Baltimore City Public School teachers. All participating teachers must attend one of our training sessions. For more information on the program, please visit [www.bioeyes.org](http://www.bioeyes.org). If you have questions or would like to sign up for one of our training sessions, please email Rob Vary at [vary@ciwemb.edu](mailto:vary@ciwemb.edu). Spots in the training sessions are scheduled on a first-come, first-served basis, so register early!



[Learn More...](#)

### Ready, Set, Design!

The Ready Set Design! program provides introductory engineering experiences for middle school girls in the Baltimore area, through half-day weekend programs at the Johns Hopkins University campus.



There are 2 sessions this fall, September 22nd and November 3rd. Find out more about times and locations [here](#).

### Nominate Students for Membership to Cogito.org

**cogito.org**

Cogito.org, an award-winning site for middle and high school students with a passion for math and science, provides a virtual place for gifted young scientists to geek out with each other and with working scientists and mathematicians. If you would like to nominate talented students ages 13-18 for membership to Cogito (membership is free), please email editor Kristi Birch at [kbirch@jhu.edu](mailto:kbirch@jhu.edu). Check out the site at [www.cogito.org](http://www.cogito.org).

## Opportunities for Teachers



### Certificate in Biotechnology Education

The Johns Hopkins University invites you to apply to the Certificate in

### SAVE THE DATE

On **May 4th, 2013** the Center for Educational Outreach is hosting the **Hopkins Robotics Cup**, the first Baltimore City Public Schools VEX Robotics Championship. All Baltimore City Middle and High Schools with VEX Robotics teams are invited to participate in this exciting event. More information will be provided as the season progresses, but mark your calendars now!

Interested in volunteering? Contact Margaret Strong at [mstrong@jhmi.edu](mailto:mstrong@jhmi.edu).

Biotechnology Education, a joint offering of the School of Education and the Advanced Academic Programs of the Zanvyl Krieger School of Arts and Sciences. This 20-credit graduate certificate is designed to allow grade 6-12 school science teachers, as well as curriculum and instructional leaders, to strengthen their content knowledge and pedagogic techniques in bioscience and develop ways to teach bioscience effectively in the classroom. The courses emphasize inquiry-oriented approaches and integrating technology in bioscience education. Moreover, teachers analyze recent research on bioscience education, reflect on their learning and practice, and develop teaching tools and assessment strategies to engage students in bioscience-related problems and inquiries.

To read an article about how a current CBE student revived a biotechnology course in a local high school, please go to:<http://biotechnology.jhu.edu/calendar?ItemsID=49>

[Learn More...](#)

### **Tuition Free Educational Opportunities for Maryland STEM Teachers at Johns Hopkins Engineering for Professionals**

The increased emphasis on quality Science, Technology, Engineering, and Mathematics (STEM) education can only be met with available and affordable professional development for STEM teachers. To help Maryland become a leader in STEM education, Johns Hopkins Engineering for Professionals offers Maryland high school STEM teachers the opportunity to enroll in one course per semester (with a tuition waiver) in any of EP's 15 graduate programs. If you have specific questions regarding the eligibility or application process, please call 410.516.2300 or 1.800.JHU.ENGR or send e-mail to Ms. Priyanka Dwivedi, Director of Admissions, [pdwived1@jhu.edu](mailto:pdwived1@jhu.edu).

[Learn more...](#)

Look for more information about the Hopkins Robotics Cup and other exciting STEM opportunities in our next newsletter.

Sincerely,

Margaret Hart  
Center for Educational Outreach

[Forward this email](#)



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