Greetings!

Winter is here! We hope that you are enjoying this frosty weather. Here are some cool upcoming STEM Events and programs.

Enjoy,
The Center for Educational Outreach

Upcoming Events

**D.C. STEM Cafe**
*Date:* Monday, February 8, 2016  
*Registration Deadline:* Thursday, February 4, 2016 at 5:00PM  
*Time:* 3:30PM - 6:00PM  
*Location:* National Geographic Museum  
1145 17th St. NW, Washington, DC 20036

The STEM Mentoring Café is a speed-mentoring program aimed at inspiring underrepresented individuals in science, technology, engineering, and math (STEM) by meeting federal role models and engaging in conversations about STEM careers. At this STEM Mentoring Café event, 5th through 8th grade students will engage in show-and-tell chats with federal employees in STEMCareers. We are especially interested in reaching girls, a historically under-represented group in STEM, to connect them to female STEM professionals. However, this program is available to all interested students and STEM professionals.

The federal STEM professionals will move from table to table to share how they got their start in STEM, what interests them the most about their job, what exciting projects they are undertaking, and why STEM matters to our society.

To find out more, email STEMED@energy.gov, or to register your group to attend use the teacher/student link below.

**Teacher (Student) Registration**

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**Bringing Moneyball to Campaigns**
*Date:* Thursday, February 11, 2016  
*Time:* 7:00PM - 8:00PM  
*Location:* Johns Hopkins University, Gilman 50

The Hopkins Undergraduate Society for Applied Mathematics (HUSAM) presents a talk by Dr. Ben Yuhas, Principal of the Yuhas Consulting Group, LLC. Over the past decade, an entire industry has grown up around the use of data to help campaigns be more efficient and effective. Whether it is trying to identify that last persuadable voter or allocating resources to get your supporters out to the polls, today’s campaigns often rely on a staff of data analysts, statisticians, and modelers. Together, data and analytics help identify which voters to target and what actions to take to generate the votes where they are needed.

In this talk, Dr. Yuhas will introduce the tools and techniques involving data, analytics, and experimentations used by campaigns. We will discuss where many of these techniques came from and how they evolved in politics to
culminate in President Obama's 2012 campaign. This survey of the data-driven campaigns will include polling, micro-targeting, and random controlled experiments.

Refreshments will be served

RSVP for the event by emailing HUSAM or visiting their Facebook.

MAGiC Forum: Solving the Equation: The Variables for Women's Success in Engineering and Computing

All organizations and individuals interested in the advancement of girls in STEM fields are invited to attend the upcoming MAGiC Research Forum featuring a presentation of the newly released research report by the American Association of University Women - Solving the Equation: The Variables for Women's Success in Engineering and Computing. Learn how you and your organization can become involved in MAGiC. Connect with companies, nonprofits, K-12 educators, community college educators, university educators, informal educators and others working in the Mid-Atlantic region to advance girls in STEM fields. Access relevant research and learn firsthand from AAUW about how the research relates to practice.

*This event is designed for adults working to advance women and girls in STEM. It is not appropriate for K-12 students.*

For more information or to register, visit the event website.

Tower of Power

Date: Monday, February 22, 2016
Time: 5:00 pm - 7:00 pm
Location: Johns Hopkins University, Glass Pavilion
Come watch as teams compete to build the tallest tower from spaghetti and marshmallows as part of the Whiting School of Engineering's National Engineers Week celebration.

WIE DREAM Conference

Date: Saturday, February 27th
Location: University of Maryland, Stamp Student Union
Time: 9:00AM - 2:30PM
The Women in Engineering (WIE) Program at the University of Maryland is excited to host its 8th annual WIE DREAM Conference! This event provides a forum to reach out to students and share the wonderful innovations, applications and opportunities that engineering offers. All high school students are invited, but the conference targets the interests of young women. Students will enjoy a series of workshops, forums, demonstrations and discussions that will truly ignite interest in engineering.

For more information contact bmcelroy@umd.edu or visit the DREAM conference website.
Girl Power at APL
Date: Sunday, March 6, 2016
Time: 2:00PM-5:00PM
Location: Johns Hopkins Applied Physics Laboratory, Kossiakoff Center
Girl Power is an event for middle and high school girls with interactive STEM booths, science shows, and workshops. Girls and their families can learn about a variety of STEM careers while engaging with STEM professionals.

For more information, contact Elise Buckley

SABES Spring STEM Showcase
Date: Wednesday, May 4th, 2016
Time: 5:00 - 8:00 PM
Location: Physical Education Complex, Coppin State University

Save the date for our Spring 2016 SABES STEM Showcase! The goal of STEM Showcases is to bring the community together around STEM by providing accessible opportunities for hands-on STEM engagement. STEM Showcases offer a forum for students to share their STEM projects with each other, their families and their community. During STEM Showcases, SABES students from nine Baltimore City elementary schools showcase the projects that they have been working on during the school day or afterschool program. Interactive demonstrations are also offered by community partners, such as the Maryland Science Center, National Aquarium, Maryland Zoo, and the Baltimore Museum of Industry, to provide families and community members an opportunity to explore and learn together. More information coming soon!

Programs

JHU Applied Physics Lab ASPIRE High School Internship
Application Deadline: Monday, February 15, 2016
Location: 11100 Johns Hopkins Road, Laurel, MD 20723
Rising juniors and seniors in high school are mentored by JHU APL staff through a technical STEM project for six to eight weeks during the summer. This highly competitive program allows students to explore STEM careers and see real-world applications of what they are learning in school.

For more information, email aspire@jhuapl.edu or visit the ASPIRE website

Girls Who Code Summer Immersion Program
Application Deadline: Tuesday, March 1, 2016
Dates: June 27 - August 12 (DC Program)
Location: Washington, DC
The Girls Who Code Summer Immersion Program embeds 20 rising high school juniors and seniors inside a technology company or university setting from 9-4PM each day. Here, young women get hands-on experience in computing concepts, programming fundamentals, mobile phone development, robotics, and web development and design. Project-based curricular modules allow participants to build products and develop innovative solutions designed to inspire an interest in and encourage their pursuit of computer science.

For more information about Girls Who Code, visit their website here.
Engineering Innovation Application Available

**Dates:** June 27 - July 22

**Times:** Monday - Friday 9am - 3pm

**What:** Engineering Innovation is an exciting college-level summer program for high school students with an aptitude in math and science and an interest in engineering. Students complete activities in computer/electrical, chemical, materials, civil and mechanical engineering. They also prepare an oral presentation, write a research paper, take weekly quizzes, and complete a comprehensive final exam. Students who earn an A or B grade in the course are awarded 3 credits from Johns Hopkins University.

This program is offered at the JHU Homewood campus and Loyola University in Baltimore, MD, JHU Montgomery County in Rockville, MD, JHU Elkridge in Elkridge, MD, Tuscarora High School in Frederick, MD, Hood College in Frederick, MD, University of DC in Washington, D.C, and other locations across the country, including California, Washington, and Pennsylvania.

Click here to apply now or for more information, visit the Engineering Innovation website or email engineering-innovation@jhu.edu

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**Features**

**Dr. Warren L. Grayson, PhD.**

In honor of Black History Month, the Center for Educational Outreach would like to recognize a member of the Whiting School of Engineering Faculty.

Dr. Warren L. Grayson is an assistant professor of biomedical engineering at the Johns Hopkins University Whiting School of Engineering and the Johns Hopkins University School of Medicine. His research examines the underlying mechanisms that regulate tissue development and uses computational and experimental tools to help engineer complex functional tissue constructs for use in regenerative medicine. The director of the Johns Hopkins Laboratory for Craniofacial and Orthopaedic Tissue Engineering, Dr. Grayson also serves on the faculty of the Translational Tissue Engineering Center and Institute for NanoBioTechnology, both at Johns Hopkins.

In this video, Dr. Grayson discusses creating bone grafts from patient STEM cells.

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**Everyday Science: El Niño**

El Niño is the warm phase of the El Niño-Southern Oscillation (ENSO) Cycle. El Niño refers to the ocean-atmosphere interaction that is connected to the warm sea surface temperatures across the equatorial Pacific. El Niño effects the North American winter season, creating warmer temperatures in the Western and Northern parts of the U.S. and wetter conditions over the gulf coast and Florida. The 2015/2016 winter season is being greatly affected by this weather pattern. For more details on the ENSO Cycle, click here.

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We hope to see you at some of these awesome events.

Sincerely,
Greetings!

Happy Leap Year! Jump into these upcoming STEM Events in the area.

Enjoy,
The Center for Educational Outreach

Upcoming Events

**Girl Power**
**Date:** Sunday, March 6, 2016  
**Location:** Kossiakoff Center, Applied Physics Lab, Laurel MD 
**Time:** 2-5pm

Girl Power is a free event for middle and high school girls with 40+ interactive tables run by STEM professionals as well as technology-centered workshops and a science show.

For more information, contact [Elise Buckley](mailto:elise.buckley@jhu.edu)

**Spring Break Events in Baltimore**

Spring Break for both Baltimore City Public Schools and Baltimore County Public Schools run from March 25-April 3. Here are some events in the area for students of all ages!

**Spring Break Camp at Lake Roland (March 28- April 01)**
Ages 6-12 Registration required, call 410-887-4156 or email lakerol-rp@baltimorecountymd.gov

**Hovercraft and littleBits** at Baltimore County Public Library, White Marsh Branch (March 29)
Build your own tabletop hovercraft you can take home with you. When you are done, spark your creativity with littleBits electronic building blocks.

**Teen 3D Printing Escape** at Enoch Pratt Library, Pennsylvania Avenue Branch (March 30)
Venture into the world of 3D printing techniques, designs, and curiosities.

Scholarships

**Society of Hispanic Professional Engineers**

**SHPE 2016-2017 Scholarship Applications Now Available**

SHPE (Society of Hispanic Professional Engineers) has several scholarships available to students for the 2016-2017 academic year. All of these scholarships have a deadline of **April 1, 2016**. For the full list of scholarships, visit the [SHPE website](http://www.shpe.org)
Engineering Scholarships

eGFI has compiled a list of Engineering Scholarships available to students, including scholarships from NSBE, SWE, BMW, and Northrop Grumman as well as University-specific scholarships.

Click here to view the full list of scholarship opportunities.

Professional Opportunities

IoT for Educators

**Date:** April 8, 2016 - April 9, 2016  
**Early Bird Deadline:** March 8, 2016  
**Time:** April 8, 2016 from 5pm-9pm / April 9, 2016 10am-5pm  
**Location:** 1045 Light Street

Baltimore MD 21230

In this workshop, educators will learn how to program connected devices to monitor and interact with the world around them. The workshop will include training and materials to support step-by-step projects that allow youth to interact with and monitor their environment while collecting real-world data.

For more information contact workshop@digitalharbor.org or Josh Doying and visit the website.

Interactive Games for Educators

**Date:** April 15, 2016 - April 16, 2016  
**Early Bird Deadline:** March 15, 2016  
**Location:** 1045 Light Street Baltimore MD 21230  
**Time:** April 15, 2016 5pm-9pm / April 16, 2016 10am-5pm

Interactive Game Design is a rapidly developing field that exists in the intersection of physical components and computer programming, where designers shape and construct new methods of gaming. In this workshop, educators will learn how to program basic game mechanics that integrate physical components.

For more information contact workshop@digitalharbor.org or Josh Doying and visit the website.

Computer Science & Play in Pre-K with Primo! Educator Session

**Date:** Saturday, April 2, 2016 or Thursday, April 7, 2016  
**Location:** FutureMakers Labs @ The Motor House 120 W. North Ave, Suite 301 Baltimore, MD 21201 or Perry Hall Branch of the Baltimore County Public Library 9685 Honeygo Blvd Perry Hall, MD 21128  
**Time:** 10:30 AM - 12:00 PM or 4:30 to 5:30 PM

Baltimore-based FutureMakers and London-based Primo will lead a free hands-on session for early childhood educators, administrators and experts who are curious about early childhood computer science exploration, and robotics programming activities for classrooms and families with children ages 4 - 7.
Science Fair Judges Wanted

Mount Royal Middle School is looking for scientists and graduate students to judge their Science Fair on Wednesday, March 9, 2016 from 5:00 to 7:00 PM at Maryland Institute College of Art's Brown Center

Student projects will be set up for display, viewing, and judging. In order to provide our students with a meaningful opportunity to discuss their projects, many judges are needed. As a judge, you will be using your expertise to determine how well our middle school students understand and use scientific thought and process in preparing their science fair projects. You will be provided a scoring rubric to evaluate the exhibits.

If you are interested in joining our science fair judging team or have additional questions contact Justin Kuk. Please confirm by email if you intend to be a judge before March 2, 2016.

Enjoy your extra day and we hope to see you at some of these events during the month of March.

Sincerely,

Margaret Hart
Center for Educational Outreach
Greetings!

Spring is here! As the weather warms and the flowers bloom, come out to these awesome STEM events.

Enjoy,
The Center for Educational Outreach

Upcoming Events

**Ready Set Design!**

**Registration Deadline:** April 13, 2016  
**Date:** Saturday, April 16, 2016  
**Location:** Johns Hopkins Homewood Campus

The Ready Set Design! program provides introductory engineering experiences for middle and elementary school girls in the Baltimore area, through half-day weekend programs at the Johns Hopkins University campus. In each session the girls will first learn about the engineering design process and about the theme of that session's activities. Then, the students will split into groups to work on the group design projects. Girls will also have the opportunity to interact with Johns Hopkins engineering students, as well as to meet local women who have found success and fulfillment in exciting engineering careers.

Register online [here](#).

**13th Annual Physics Fair**

**Date:** Saturday, April 16, 2016  
**Location:** Johns Hopkins University

Join the JHU Physics department for their annual physics fair! Events include: Physics Challenge and Science Challenge, a Scavenger Hunt, Observations Through the Morris W. Offit Telescope, and MORE!

For details, visit the [Physics Fair website](#).

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.

In This Issue

- Ready, Set, Design!
- JHU Physics Fair
- USA Science & Engineering Festival
- SABES STEM Showcase
- Engineering Innovation
- Phone & Games!
- Camp Invention
- Maker Camp
- Camp MSC

Featured Websites

- [Code Academy](#) (All)
- [Umigo](#) (K-5)
- [Space Place](#) (All)

Quick Links

Check out more local organizations for other possible STEM opportunities!
The USA Science & Engineering Festival is a national grassroots effort to advance STEM education and inspire the next generation of scientists and engineers. Our exhibitors, performers, speakers, partners, sponsors and advisors are a who-is-who of science and engineering in the United States: from major academic centers and leading research institutes and government agencies to cutting-edge high tech companies, museums and community organizations.

Over 1,000 leading STEM organizations will present hands-on science and engineering activities for people of all ages. The event is free of charge. Sneak Peek Friday will take place on April 15, 2016 - registration info for schools will be provided soon.

For more information, visit the USA Science and Engineering Festival Website

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**SABES STEM Showcase**

**Date:** Wednesday, May 4, 2016  
**Time:** 5:30PM - 7:30PM  
**Location:** Coppin State University, Physical Education Complex, 2523 Gwynn Falls Parkway, Baltimore, MD 21216  
**RSVP Deadline:** Friday, April 8th 2016

The SABES STEM Showcase is a chance to see what the 3rd, 4th, and 5th grade scholars at SABES partners schools have been learning and exploring through the program. SABES is a five-year project focused on nine Baltimore City Public Schools elementary and elementary/middle schools to improve STEM curriculum and delivery in grades 3 through 5. Additionally, the project offers STEM-focused afterschool programming where students work on hands-on, inquiry-based projects and create student-driven projects relevant to their communities.

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**Summer Camps and Programs**

**Engineering Innovation**

**A Summer Program for High School Students**

Engineering Innovation is still accepting applications for Summer 2016! For details concerning the program and a full list of open sites, please visit the Engineering Innovation website.

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**Phone & Games!**

**Date:** July 25th - July 29th  
**Time:** 9AM - 3PM  
**Location:** Johns Hopkins Montgomery County Campus, 9601 Medical Center Drive, Gilchrist Hall Rockville, MD 20850  
**Cost:** $500 for the week.

Middle school students are invited to apply for a one week computer science
camp at the Johns Hopkins Montgomery County Campus. In small teams, they will create and present a mobile game app using App Inventor and will learn programming concepts, apply math concepts and practice the design process.

For more information, please contact Barbara Crews, 301-294-7004 or bcrews@jhu.edu.

Camp Invention 2016
Camp Invention is a national summer camp program focused on teaching children critical thinking skills using STEM concepts and hands-on activities.

Camp Invention is available at the following sites in the Baltimore Area: The New Century School, Rodgers Forge Elementary School, Cromwell Valley Elementary, and Summit Park Elementary.

Dates and Prices vary by location. For more information, visit the Camp Invention Website.

Maker Camp
Digital Harbor Foundation is proud to present the 2016 Maker Camp! This summer we will be offering camp experiences for youth in grades 1-10 focused on 3D Printing, Circuits & Electronics, and more! All camps are Pay What You Can and take place at the DHF Tech Center.

Dates vary based on program. For more details, visit the Maker Camp page on the Digital Harbor Foundation website.

Camp MSC
Maryland Science Center offers summer camp programming during the month of July for children ages 4-13. Choose from week-long full day and half day programs. Extended care options available with early drop-off and late pick-up. This summer, get science!

Advance registration is required. Spaces are filled on a first-come, first-served basis.

For more details about the specific programs and to register, visit the Camp MSC website.

There are lots of amazing STEM opportunities this spring and summer. We
hope you all take advantage of them!

Sincerely,

Margaret Hart
Center for Educational Outreach
Greetings!

Welcome back to school! September and October are great outdoor months to introduce students to STEM activities through field trips. Share these fun and exciting events with your middle and high school students and consider a teacher training opportunity as well.

Enjoy,

Center for Educational Outreach Team

Upcoming Events

Battle O' Baltimore

FIRST Robotics Competition comes to McDonogh High School in Owings Mills, MD. 36 high school robotics teams will come together to play FIRST Stronghold, the FRC game for this season. This event is free and open to the public to attend.

Date: September 24, 2016
Time: 9AM - 6PM
Location: McDonogh High School 8600 McDonogh Road
Owings Mills, MD 21117

Click here for more information

Ready, Set, Design!

Ready, Set, Design! is a half-day event for middle school girls in grades 6-8. The goal of this program is to encourage young girls to explore opportunities in engineering. At the event girls will be divided into small groups to work on engineering design projects with the help of Johns Hopkins engineering students. This event requires registration and is free of charge.

Date: October 15, 2016
Time: 10AM - 1PM
Location: JHU Homewood Campus, Glass Pavilion

Contact readysetdesign@gmail.com for further info.

Code in the Schools Game Jam 4.0
Code in the Schools’ Game Jam is a free, annual event for Baltimore youth in 6th to 12th grade. Teams of four students compete for awesome prizes by designing and developing an original video game in 12 hours using the Unity 2D game engine, with judging throughout the day by video game development professionals.

**Date:** October 10, 2016  
**Time:** 8AM - 8PM  
**Location:** TBA

Click here for more info

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**JHU/APL STEM Academy**

APL’s STEM Academy is sponsoring the Girls Who Code Club as well as offering two training courses aimed at middle and high school students during the fall semester. Details regarding the content of the training courses will be posted on their website shortly. Registration will be available online and through the mailing list: [http://www.jhuapl.edu/STEM/](http://www.jhuapl.edu/STEM/)

For further details, email Elise Buckley or call at 240-228-3678.

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**Field Trip Ideas**

Thinking about where to take your students for a cool STEM related field trip? We've got you covered!

**Cylburn Arboretum Nature Museum** - open by appointment; call 410-367-2217 for more information on booking a tour. Located at 4915 Greenspring Ave, Baltimore, MD 21209.

**Banneker Planetarium** - open Monday - Friday at 10:15AM. Located on the CCBC Catonsville campus at 800 S. Rolling Rd, Catonsville, MD 21228. Free. Call 443-840-5939 or email Angie Black to schedule a show.

**Maryland Science Center** - open Monday - Friday 10AM - 6PM and Friday 10AM - 8PM. Located at 601 Light St, Baltimore, MD 21230. Free when you present City Schools ID. Call 410-545-5929 to reserve your field trip.

**The National Aquarium** - open Monday - Thursday 9AM - 5PM and Friday 9AM to 8PM. Located at 501 E. Pratt St, Baltimore, MD 21202. There is a free Maryland teacher orientation workshop you must attend prior to booking your field trip. Free. Call 410-576-3833 to register for a workshop.

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**Professional Opportunities**

**Project BioEYES Teacher Training**

Project BioEYES is an exciting, hands-on science program that brings live animals into your classroom! During the week-long program, students work with zebrafish, which produce embryos that are raised over the course of the following week. By Friday, the embryos have hatched into larvae with beating hearts and flowing flood that can be viewed under our microscopes. To bring the program to your school, all participating teachers must attend one of our training sessions. For more information visit [BioEYES](http://www.jhuapl.edu/STEM/).

**Training session dates:**  
October 8, 2016  
November 12, 2016  
December 3, 2016  
February 4, 2016

**Location:** Carnegie Institution for Science  
3520 San Martin Drive, Baltimore, MD 21218
| Time: 9AM - 2PM |

**STAY CONNECTED:**

[Facebook](#) [Twitter](#) [LinkedIn](#) [Pinterest](#)
November 2016 STEM Newsletter

Greetings!

It's halfway through the semester and we've got some high-quality programs on the horizon. Get your students prepared for great STEM educational opportunities happening this November and December and take advantage of some local professional development events for yourself.

Enjoy,

Center for Educational Outreach Team

Upcoming Programs and Events

Ready, Set, Design!

Ready Set Design's second fall event! This is for elementary school girls grades 3-5. Girls will be broken up into small groups and they will be designing and building a roller coaster! Registration for this session will close at 11:59PM on Wednesday November 2nd. This is a free event.

Date: November 5, 2016
Time: 10AM - 1PM
Location: JHU Homewood Campus, Glass Pavilion

Contact readysetdesign@gmail.com for further info.

eCYBERMISSION

eCYBERMISSION is a web-based science, technology, engineering and mathematics (STEM) competition free to students in grades 6-9 that promotes self-discovery and enables all students to recognize the real-life applications of STEM. Teams of three or four students are instructed to ask questions (for science) or define problems (for engineering), and then construct explanations (for science) or design solutions (for engineering) based on identified problems in their community. Students compete for State, Regional, and National Awards.

Registration closes December 7, 2016

Visit eCYBERMISSION for complete details.

Engineering Innovation
Engineering Innovation is an exciting college-level summer program for motivated high school students with an aptitude in math and science and an interest in (or curiosity about) engineering. Students learn to think and problem-solve like engineers and have the opportunity to earn Johns Hopkins University (JHU) credit.

**Application will be available starting December 15th.**
Course runs June 26 to July 21 at most locations.
Locations in CA, DC, MD, OH, and PA

Contact: engineering-innovation@jhu.edu or visit Engineering Innovation for more information.

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**Maryland Junior Science and Humanities Symposium (JSHS)**

High school students present the results of their original research efforts before a panel of judges and an audience of their peers at regional symposia.

Maryland high school students who apply and are selected for this event can participate either as a presenter or as a student delegate. The top three regional scholarship finalists at the Maryland Regional JSHS are awarded academic scholarships, ranging from $1,000 to $2,000. In addition to receiving scholarships, the top five presenters will be invited to compete at, and will attend the 55th annual National JSHS in San Diego, California, which is scheduled for April 26-30, 2017.

**Deadline to submit: January 13, 2017**

Visit Maryland JSHS for details. You may also contact jsherp@umd.edu, 301.405.8467, for Maryland event information.

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**FREE SciTech Visits!**

Bring your students to the SciTech Student Learning Lab for free! Thanks to generous funding from the T. Rowe Price Foundation, the Pepsi Foundation and BGE, we are able to cover the students fees and round trip bussing to Towson University's Center for STEM Excellence!

The SciTech calendar is filling up fast, so get your application in now!

**Click here for more information and to apply.**

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**Professional Opportunities**

**Make. IT. Work. Conference**

Join Digital Harbor Foundation, Maryland State Department of Education, and Baltimore County Public Schools on November 5th, 2016 at Eastern Technical High School for the Make. IT. Work. Conference. This innovative conference is dedicated to Making, Instructional Technology, and Workforce Readiness in the Education realm. Contact contact@digitalharbor.org or visit Digital Harbor for more info.

**Date:** November 5, 2016

**Location:** Eastern Tech High School
1100 Mace Ave, Baltimore, MD 21221

**Time:** 9:30AM - 3:00PM
Fall Educator Workshops

Digital Harbor Foundation has three fall workshops for Maker Educators. Learn scratch programming language and create interactive MaKey MaKey controllers in Interactive Games. Intro to Arduino is a foundation course for those looking to learn how to program devices and get involved with the Internet of Things. 3D Printing for educators is our most popular workshop and introduces the hardware and software of 3D Fabrication. All workshops include at least $300 of take home equipment.

**Dates:** November 11-12, November 18-19, and December 8-10

**Location:** Digital Harbor Foundation
1045 Light Street, Baltimore, MD 21230

**Time:** 5PM - 9PM Weekdays and 10AM - 5PM on Saturday

Contact: [josh@digitalharbor.org](mailto:josh@digitalharbor.org) or visit [the website](http://www.digitalharbor.org) for more info.

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**Featured Partnership**

**Army Educational Outreach Program**

The Center for Educational Outreach and Hopkins Extreme Materials Institute at Johns Hopkins University have been awarded a strategic outreach initiative grant to help promote the Army Educational Outreach Program (AEOP). The mission of AEOP is to provide both students and teachers a collaborative, cohesive, portfolio of Army-sponsored STEM programs that effectively engage, inspire, and attract the next generation of STEM talent through K through college programs and expose them to Department of Defense STEM careers. Starting this month, this newsletter will include the AEOP's student enrichment, competitions and apprenticeship opportunities in Maryland. We are hoping that students will take advantage of these exciting opportunities.

[Click here for more info](http://www.armyeducation.org)