This issue of the Science Matters eBlast is filled with Pre-K through high school opportunities and resources for both teachers and students. Please share the eBlast with your colleagues. It is also available by one of three methods, depending on how you receive this email. You can click on the attachment at the end of the message, locate it in the SAS Science Learning Community of SAS, or download directly with this link.

**Science Education in the News**

**The Updated Science Curriculum Framework** will be posted in the Curriculum Framework section of SAS today. It will be maintained in the SAS Science Learning Community as well, along with other resources that are useful for districts in developing science curriculum. The interactive section of the Curriculum Framework is no longer available for science, and the framework will be available in both pdf and Word documents in the near future. The Science Curriculum Framework has been three years in development with over 500 Pennsylvania science educators involved in the development of the framework. This document aligns with the 2002 PA Academic Standards, SAS Standards, Assessment Anchors and Eligible Content, and the Next Generation Science Standards. Thank you for your work and input which is so important in making this document available for districts across Pennsylvania. Next steps will include working on assessments for biology along with grades four and eight in the Assessment Builder on SAS.

**New PDE Technology Education Advisor** - Laura Hummell is joining the Bureau of Curriculum, Assessment and Instruction as the Technology Education Advisor. Dr. Hummell was most recently on the faculty of California University of Pennsylvania and has extensive experience in Technology Education. Her first day is January 3, and you can meet her during the SAS Training sessions listed below to talk about STEM, Technology Education, and resources available for your district and classroom. Her email address: lhummell@pa.gov

**The Gender Gap in Computer Science is Hurting U.S. Businesses** – an opinion by Reshma Saujani and Julie Sweet in the Washington Post, December 27.

**The Waterbury Lecture Series** – at Penn State preceded the PSTA Leadership Day in State College. Richard Duschl holds the Waterbury Lecture Series every year. Peter McLaren, Brett Moulding, and Carla Zembal-Saul were the featured speakers for PSTA which immediately followed the lecture.
Professional Opportunities

Pennsylvania Sea Grant’s 2017 Extreme Weather E-Forum has an exciting opportunity for both teachers and students. The Extreme Weather E-Forum has been created especially for high school environmental science and biology students, and provides an opportunity to investigate the relationship between climate and extreme weather and think more critically about what it means to become more resilient. Students can blog with other Pennsylvania classrooms to raise awareness about preparing for extreme weather events, share lessons learned, and inspire a community approach.

Eligibility: The E-Forum is open to high school classes with an environmental focus, including biology, chemistry, earth and space science and others. While priority will be given to schools located in the coastal portion of the Delaware River watershed, we invite other Pennsylvania schools as space permits.

Timeframe: The E-Forum runs from March 15 to April 28, 2017, online materials available year-round: http://easternpaseagrant.org/extreme-weather-e-forum

To enroll your class in Pennsylvania Sea Grant’s 2017 Extreme Weather E-Forum, please e-mail Ann Faulds (amf12@psu.edu) with the following information:
1.) Your school’s name and location, and;
2.) What class(es) and how many students you would like to register.

The registration deadline is February 3, 2017.

Comments from evaluations of the first SAS Training that is coming to an area near you!

The content was presented clearly and effectively. Very well done by all content area specialists. I came away with a wealth of knowledge that I shared immediately with other admin and educators.

The entire training was well done. I thought the break-out sessions went well and offered an opportunity to speak to a content specialist. I learned a lot.

This training was very beneficial! I’ve already found so many resources to use with my students that I didn’t know were offered online before through the SAS Portal. Thank you!

Thank you for so much new information!

Great sessions! I learned about areas I never knew existed! Thanks!

Registration: http://remark.iu5.org/scripts/rws5.pl?FORM=SASPortal16-17

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<tr>
<th>Location</th>
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<tbody>
<tr>
<td>Colonial IU 20 – January 6</td>
<td>IU 5 – February 6</td>
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<tr>
<td>Harrisburg PaTTAN – January 25</td>
<td>Scranton Hilton – February 15</td>
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<td>State College Toftrees – January 26</td>
<td>East PaTTAN Malvern – February 23</td>
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Registration is open for a FREE Organ & Tissue Donation Awareness Spring Institute in State College, PA on May 11-12, 2017. Secondary school teachers of all discipline areas, administrators, and school nurses are invited to attend. Act 48 credit is available and Act 58 credit for nurses is pending approval. Grants up to $5,000 per year are available for schools to assist in the implementation of Organ and Tissue Awareness into your curriculum. This is a great place to start to learn about organ and tissue donation and to learn about the grants for your classroom/school. Space is limited. The free registration includes lodging, meals, and the conference. To register go to: https://www.mylearningplan.com/WebReg/ActivityProfile.asp?D=10019&l=2315772

For questions: Sue Howes, OTDA Project Coordinator at sue_howes@iu13.org or (717) 606-1795.
**PA State Parks** continue to offer innovative, multi-modal educator workshops across the state. New sessions for after the first of the year have recently been added. Participants will receive Act 48 credit.

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<tr>
<th>Date</th>
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<tr>
<td>February 16</td>
<td>Go Teach: GPS</td>
<td>Wildwood Park</td>
<td><a href="mailto:jwebster@dauphin.org">jwebster@dauphin.org</a></td>
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<tr>
<td>March 24</td>
<td>Project Learning Tree</td>
<td>Kings Gap EE Center</td>
<td><a href="mailto:sberg@pa.gov">sberg@pa.gov</a></td>
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<td>March 25</td>
<td>Project Learning Tree</td>
<td>Moraine State Park</td>
<td><a href="mailto:moraineenedsp@pa.gov">moraineenedsp@pa.gov</a></td>
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<tr>
<td>April 8-9</td>
<td>Watershed Education</td>
<td>Presque Isle State Park</td>
<td>Register online</td>
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Continuous updates of workshops can be found at:  

**Expanding Your Horizons: STEM Career Day for Girls** for middle and high school students will be held at Penn State University on January 28, from 9:00am – 4:00pm. It is an inspiring full-day event for middle and high school girls that will feature speakers and interactive workshops on STEM topics and careers. Registration and information:  
[http://science.psu.edu/outreach/special-programs/EYH](http://science.psu.edu/outreach/special-programs/EYH)

**Penn State CSATS Summer Workshops** have been announced. Spend a week with [Center for Science and the Schools](http://csats.psu.edu/overview-of-csats-programs/summer-workshops) getting an in-depth experience with Penn State researchers. CSATS week-long workshops focus on engaging teachers in activities designed around cutting-edge research projects. Workshop activities may include field trips to site locations, working with researchers and graduate students in their labs or in the field, and professional development tailored to bring research-based practices into your classroom!

**Links of the Week**

Each eBlast will have a few links for you to check out. By including these links, we are not endorsing the organizations/links, but provide them as a possible resource. Let us know your favorite websites for your use and your students to use in the classroom.

**Biology Keystone Exam Resources.** Numerous districts have put together web pages for their students as resources. Here are some examples, and we will add others over time. If you have or know of a great resource, let us know!

**Pennridge High School** has put together resources for the Biology Keystone:  
[Science Department](http://www.pdesas.org/Page?pageId=30)

**Pennsylvania Learns** has resources for all levels of students. Teachers from across the state put together the resources to be utilized in all classrooms with a focus on one to one schools. The biology teachers organized resources around the Assessment Anchors and Eligible Content of the Biology Keystone Exam. This is one of the hidden jewels of SAS!  

**AAAS Science NetLinks** has lessons, videos explaining science concepts (for example, football physics), and resources that can be searched by grade level and discipline.
The Science Spot is a resource for junior high science teachers. Numerous links to different websites are provided, along with lesson plans for different disciplines. Nature Center links and lesson plans are also available.

Grants, Awards, Contests

The KidWind Challenge is an event developed to allow students to explore the power of wind by building and testing their own wind turbines. Teams from can register to participate in the Pennsylvania KidWind Challenge held at PSU through the KidWind website. The KidWind Challenge at PSU will be held on March 15, 2017, from 9:00-3:30pm. Over 10,000 have participated in KidWind Challenges all over the US! Teams from can register to participate in the Pennsylvania KidWind Challenge held at PSU through the KidWind website. Contact Ashley Rapsinski at adb236@psu.edu or 814-865-1713.

Young Scientist Challenge is open to students enrolled in 5th through 8th grade. The contest period commences on December 15, 2016 and ends on April 19, 2017. Eligible students shall have the opportunity to create a video in accordance with the Challenge outlined on the website. Students should identify a solution to an everyday problem that directly impacts them, their families, their communities, and/or the global population. The idea must be a new innovation or solution, and cannot simply be a behavioral change or a new use for an existing product. https://www.youngscientistlab.com/

National Youth Science Camp – The National Youth Science Camp is now accepting applications for graduating high school students from Pennsylvania. The camp is limited to two students from each state, which is an amazing honor. This is a phenomenal experience for students that will take place in West Virginia, June 14-July 8 . . . and all expenses are paid! Applications are now available online. Start the process immediately!

The Presidential Awards for Excellence in Mathematics and Science Teaching application will be available the first week of November. PAEMST is a phenomenal program that recognizes excellence in the teaching of science. By going to the PAEMST website, you can sign up for notification of information regarding the program.

Science Matters Information

If someone sent you this eBlast, you can become a member of Science Matters to receive it directly! Go to: http://pascience.org/Science-Matters.php

Science Matters is an initiative of the Pennsylvania Science Teachers Association and the National Science Teachers Association to promote quality science education, through the sharing of information, resources, and professional development opportunities. The Pennsylvania state coordinator is Dave Bauman: davbauman@pa.gov.