RI Science Teachers Association shares opportunities in science education for teachers and students.

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| http://www.rista.us/Resources/Pictures/RISTA%20logo%20small.png |

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| **Science Update** |
| February 18, 2016 |

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*If you are interested in any of the opportunities listed, please contact the organization that is listed. Send any items that you consider relevant to other science educators to ristanewsletter@gmail.com*

**Upcoming RISTA Events**

RISTA Conference: *Moving Toward an NGSS Classroom*

***Saturday, March 12th*** ***at LaSalle Academy in Providence***

2016 Conference plans are set and we are looking forward to seeing the great science educators of Rhode Island!  Our keynote speaker will be Page Keeley, a past NSTA President who has authored a number of books on formative assessment techniques in science classes.  She is a great presenter and we welcome her to Rhode Island.  We have selected our science educators from K-16 to present on topics related to NGSS, including lesson ideas and useful resources.  Our conference registration link is on our webpage at [www.rista.us](http://www.rista.us/%22%20%5Ct%20%22_blank) along with session information.

**Page Keeley’s Keynote Address:**

***Uncovering Student Thinking- What Does It Really Mean to Teach for Conceptual Understanding?***

*Four decades ago David Ausubel made the oft-quoted statement: "The most important single factor influencing learning is what the learner already knows. Ascertain this and teach accordingly." But for four decades, we have been trying to find out what accordingly means! K-12 students (and teachers) hold strongly held ideas about the natural world as they try to make sense of their every day and instructional experiences. Teaching for conceptual understanding involves building a bridge between students' initial common sense ideas and the core scientific ideas in the NGSS we want students to know and be able to use.*

**Workshop descriptions , agenda, and online registration at [www.rista.us](http://www.rista.us/%22%20%5Ct%20%22_blank)**

**Register today!**

**NGSS Information and Resources:**

Science Teachers Learning: Enhancing Opportunities, Creating Supportive Contexts

(Free pdf Download) In a recently released report, the National Academies of Science addressed, among other things, the challenges of providing adequate professional development for science teachers.

Twitter @RI\_STA and #NGSSchat

Follow RISTA on Twitter!  Our "handle" is RI\_STA.  You can send us information, links, resources by retweeting them with @RI\_STA added on.  Very easy to use and many great educators are connecting on twitter these days!

If you need ideas and inspiration about implementing NGSS get a Twitter account!  On the 1st and 3rd Thursday of each month (9-10 pm EST), science educators from across the country sign on and use #ngsschat in their tweets to discuss a set of questions.  See [https://ngsschat.wikispaces.com/home](https://ngsschat.wikispaces.com/home%22%20%5Ct%20%22_blank) for some archived ‘chats’ (most recent is at the bottom of the list.  If you are new to twitter, just search for #ngsschat and read the conversation.  When you are ready to join in, just write a post and include #ngsschat so others following will see it.  Many great ideas and resources are shared! Also, if you are on Twitter, be sure to follow RISTA at RI\_STA to stay informed of the latest information!

NGSS@NSTA Hub

55 trained curators have been seeking out quality resources.  Curators are science educators who teach K-12 and have been trained by NSTA to vet resources for each of the NGSS Performance Expectations.  The resources are being uploaded as the resources are reviewed, some PEs are not complete.  Check out the site atngss.nsta.org and click on ‘The Standards’ tab.  Choose the PE that you need a resource for and scroll to the bottom of the page, resources will be listed at the bottom right corner.  Check back for additional resources!

**Opportunities & Resources for Teachers:**

RI Educator Aboard Joides

Follow your colleague, Nina Rooks Cast, as she sails aboard the JOIDES Resolution for two months on Expedition 361: Southern African Climates.  You can follow her blog posts on joidesresolution.org , and check out the other social media outreach information available via links on the website.  There are also over 180 curriculum lesson plans available through the resources page that can be narrowed down by specific subject matter and/or age/grade level.  There's also a link to the live broadcast request page, where you can sign up for a 40 minute zoom chat with Nina for your classroom - most slots in February are already filled, but there are plenty available in March.  Lastly,there is also a link to sign up yourself for this once-in-a-lifetime opportunity - they are currently accepting applications for the next FIVE expeditions!  Hope to hear from you all!

Summer Institute for Climate Change Education

Give me an N! Give me a G! Ok, sorry! We are just really excited about the Next Generation Science Standards (NGSS) and the fact that they include climate change. Our newest curriculum, **Next Generation Climate for grades 6-8**, supports NGSS and we want to help you incorporate both these new standards and climate change into your educational setting. **[Register today for our 11th annual Summer Institute for Climate Change Education](http://www.climategen.org/what-we-do/education/professional-development/summer-institute/summer-institute-2016/%22%20%5Ct%20%22_blank)** to get hands-on training to teach climate change and network with other educators in a fantastic setting. See you in June!

Climate Generation: A Will Steger Legacy has developed a new curriculum, Next Generation Climate, that is a great resource for integrating Next Generation Science Standards into your teaching. This year’s Summer Institute for Climate Change Education will offer training on this curriculum, which is appropriate for any middle school or high school classroom. It involves investigating the cause of global temperature change, researching the major repercussions, and analyzing graphs and data.

[www.climategen.org/summer-institute](http://www.climategen.org/summer-institute%22%20%5Ct%20%22_blank)

 June 21-24, 2016 Macalester College, St. Paul, MN, Registration $150

Summer Teacher Seminar at the National WWII Museum

Come to the National WWII Museum in July of 2016 to learn how to teach science in the context of history, with hands-on activities and literacy connections. Open to 28 5th-8th grade teachers from around the country. The seminar is free, we reimburse for travel, and pay for hotel and most meals. Learn more and apply at:

[http://www.nationalww2museum.org/learn/education/for-teachers/summer-teacher-seminar.html](http://www.nationalww2museum.org/learn/education/for-teachers/summer-teacher-seminar.html%22%20%5Ct%20%22_blank)

NELMS partners with Red Sox for STEM Event

Groups may participate in pregame STEM activities:
Egg Drop off the GREEN MONSTER, Wildlife Show, and in seat educational workbooks for the **Thursday, April 21st, 1:35pm game against Tampa Bay**.

**STEM Egg Drop** (pregame event for groups who register)
\*Students will DROP the EGG from the top of the GREEN MONSTER onto the LF Warning Track!
\*The guidelines for building the device that will hold the egg will coincide with Common Core Standards for the NE states

**STEM Wildlife Education** (pregame event for groups who register)
\*Curious Creatures will bring their live animal show into Fenway Park and talk about animal habitats, diet, and more!

**In-Game Education Booklets** (during the game for groups who register)
\*Elementary or Middle School booklets correlated to the Common Core Standards
\*Booklets will have questions relating to Fenway Park, baseball, math, science, and more!

Tickets giving access to all educational pregame events and the game start at $10!(Limited number of $10 tickets available, other seat locations/price is also available)

Schools and groups can participate in any number of events for the day! All children (14 and under) who are part of any sized group will get to run the bases after the game! (This event is subject to change)
Please RSVP if you are interested. I look forward to hearing from you!
Matt Labossiere, Senior Account Executive, Group Sales
Boston Red Sox
4 Yawkey Way
Boston, MA 02215
direct: 617.226.6834 cell: 617.851.9444
email: mlabossiere@redsox.com

[Egg Drop Rules in a pdf file](http://www.nelms.org/images/Red_Sox_STEM_Day.pdf%22%20%5Ct%20%22_blank)

Free Teacher Event at Mystic Aquarium!

Educators and Administrators are invited to join Mystic Aquarium on ***Thursday, March 10th from 4:00pm to 7:00pm*** as we dive deep into ocean conservation and education and learn about the wide variety of educational opportunities. Highlights of the event include the opportunity to enjoy the Aquarium after the crowds go home, guided tours, chances to win a free educational program, and more! You must make a reservation, so pre-register today! Follow this link for more information and to make a reservation: [http://www.mysticaquarium.org/fun-and-learning/teachers-and-school-groups/educator-resources](http://www.mysticaquarium.org/fun-and-learning/teachers-and-school-groups/educator-resources%22%20%5Ct%20%22_blank)

NECAP Test Development

The Office of Instruction, Assessment and Curriculum has two opportunities each year for classroom teachers and other educators to participate in the development of the NECAP tests for grade 4, 8 and 11 in science. Teacher committees are essential to the work of creating a valid and reliable assessment system. Many educators have participated in test development committees and have learned a lot not only from the process but also from educators representing all three NECAP Science States (New Hampshire, Rhode Island and Vermont).

Educators must complete an application and meet minimum criteria in order to be considered for participation on one of the committees. **Applications are due by 4 p.m. on Friday, May 27, 2016**. **NOTE:** *Even if you have applied and/or attended in the past*you *still* must complete an application each year in order to be considered for participation. Successful applicants will be notified by Friday, June 10, 2016.

**Location and Dates:**The “Item Review Committee” (IRC) and “Bias & Sensitivity Review Committee” meetings will be held in **Concord, NH.** The*Bias & Sensitivity Review Committee* will be held on **August 4th, 2016** and the *Item Review Committee* (IRC) will take place on **August 4th and 5th, 2016**.

Please see attached for more detailed information and an application form.  Applications can also be found on the RIDE web page at: [www.ride.ri.gov/NECAP-Test-Development](http://www.ride.ri.gov/NECAP-Test-Development%22%20%5Ct%20%22_blank)

Feel free to share this information with teachers who may be interested.

Position Opening at Save the Bay: Summer Marine Science Educator

**Reports to:** Bay Camp Manager

**Locations:** Various camp locations throughout Rhode Island
**Dates*:*** June - August 2016

**POSITION DESCRIPTION:** As a member of Save The Bay’s education team you will be responsible for leading week long, day camp programs along Narragansett Bay and its shorelines.  You will be responsible for developing marine-oriented educational activities, programs, games and crafts for students in grades K-8. This is an excellent opportunity for individuals looking to gain hands on experience working in marine science and/or environmental education.

**QUALIFICATIONS:**

·       College coursework in marine science, biology, environmental science, education or related course of study.  Recent graduates are encouraged to apply.

·       Demonstrated enthusiasm for teaching science related topics in informal settings.

·       Excellent communication skills required. Must be outgoing and have a positive personality.  Must work well with children and adults. Must be able to handle sensitive situations with maturity.

·       Must be comfortable working outdoors despite extremely sunny, hot or rainy conditions. Must be physically capable of walking several miles, lifting medium weight objects, etc.

·       First Aid/CPR certification required.

·       Lifeguard certification a plus.

·       Comfort working aboard motor vessels is a plus.

·       A criminal background check is required.

·       Must have own transportation and be willing to drive to several locations around the state

**Compensation:** $12 per hour

**TO APPLY:** Please send resume and cover letter **by March 30, 2016** to Dan Blount at dblount@savebay.org or Attention Dan Blount, Bay Camp Manager, Save The Bay, 100 Save The Bay Drive Providence, RI  02905.

Would you like to visit the Museum of Science on a free field trip?  Thanks to Google, you can!

Qualifying New England schools can participate in Google Field Trip Days this April! If your school has free and reduced lunch participation at or above 35% and/or a population of economically disadvantaged students at or above 25%, we welcome you to reserve your spot on a field trip funded by Google.

Download this letter for details on eligibility, dates, and options available to you and your class.  **Reservations must be made by Friday, March 18 to participate in this special offering.** Please call Science Central to reserve your spot: 617-723-2500.

AGI Teacher Leader Academies

     We're looking forward to the 2016 Teacher Leader Academies in Houston, TX. Once again, teachers selected to attend will have their academy-related expenses covered, and will have a great week of professional development.

      Attached are two (K-5 and 6-8) flyers for the academies. Please share these with your science supervisor and, assuming that the supervisor responds positively, please also encourage your colleagues to request that they be nominated by a school administrator and then apply. The first priority date for applications is March 1. While teams of teachers from a school system or state are preferred, individual applicants are also welcome. As indicated on the flyers, nominations should be sent to Laura Rios, Education Specialist, at llm@agiweb.org. We will begin announcing selections by April 15.

      In addition to being nominated by a school administrator and completing an online application, the applicants will need to provide a resume or curriculum vitae, a recommendation from a school/system administrator stating that they will be able to do one or more workshops for colleagues after attending the Teacher Leadership Academy, and a letter of interest stating their reasons for wanting to attend. The workshops that they present can be in their school system, at a regional conference, and so on.

     If you, your science supervisor, or your colleagues have questions, please feel free to contact me at 703-379-2480 (extension 245) or by e-mail at ecrobeck@agiweb.org.

LinkEngineering

LinkEngineering is a community of educators working with PreK–12 students in classrooms or other settings. This includes—but is not limited to—teachers, teacher educators, and administrators. The site allows members to connect with each other and engineering education experts. LinkEngineering is a resource website that provides examples of engineering in educational settings. It also provides background information on engineeringand engineering design.

This site is the product of collaboration between the National Academy of Engineering and five partner organizations: Achieve, Inc., NSTA, Council of State Science Supervisors, American Society for Engineering Education, and the International Technology and Engineering Educators Association. Funded by Chevron, LinkEngineering is designed to support more effective engineering experiences in classrooms and out-of-/after-school settings. It is not merely a collection of stuff. It is a community of practitioners learning from one another. Sign up at [www.linkengineering.org](http://www.linkengineering.org/%22%20%5Ct%20%22_blank)

New Engineering Videos for K–12 Educators

The Museum of Science, Boston has released a series of videos to help K–12 educators understand and implement new academic standards. Created by Engineering is Elementary® (EiE®), the award-winning curriculum project of the Museum's National Center for Technological Literacy® (NCTL®), the "EiE Video Snippets" illuminate the science and engineering practices specified in the Next Generation Science Standards (NGSS), showing what these practices look like when young children try them in real classrooms. For each of the eight NGSS practices, the collection features a set of up to four short (1- to 2-minute) videos; some show elementary students engaging in a practice, such as planning an investigation, analyzing data, or making an argument based on the evidence; others show teachers using instructional strategies that guide students in the practices.

Presidential Award for Excellence in Math and Science Teaching (PAEMST) Nominations are open

**The Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST),** the nation’s highest honor for teachers of mathematics and science, has opened its 2015 – 2016 nomination and application period for elementary (K-6th) teachers. PAEMST is awarded annually to exceptional K-12 educators throughout the nation, alternating each year between K-6 and 7-12 grades.

We encourage you to nominate an exceptional teacher you may know, or if you’re a teacher yourself, to being an application.

Being a PAEMST awardee is a tremendous honor. Recipients will gather in Washington, D.C. for a series of events as tribute to their accomplishments, will receive a certificate signed by the President and a $10,000 award from the National Science Foundation (NSF).

The 2015-2016 **nomination deadline is April 1, 2016**, and the **application deadline is May 1, 2016**, so consider nominating a talented teacher or submitting a self-nomination on the PAEMST website

NSTA Conferences

NSTA conferences offer the latest in science/STEM content, pedagogy, and research to enhance and expand your professional growth. Take advantage of this unique opportunity to collaborate with science education leaders and your peers. Each year, NSTA hosts a national conference on science education (in the spring), three area conferences (in the fall), and a STEM Forum & Expo. Learn more

**2016 Conferences:**

**Nashville (National): Mar. 31–Apr. 3, 2016**

**STEM Forum & Expo: Denver, July 27–29, 2016**

**Opportunities for Students:**

National Parks Student Contest

National Park Trust's annual Kids to Parks Day National School Contest empowers students to plan their own educational park experience. Open to all Title 1 schools for grades PreK through 12, this contest provides grants of up to $1,000 to cover transportation, park-related fees, stewardship supplies, or anything else students believe would enhance their experience. Our 2016 contest will be awarding 100 park grants to 100 schools nationwide. Deadline is March 4, 2016. Details can be found at [www.kidstoparks.org](http://www.kidstoparks.org/%22%20%5Ct%20%22_blank)

OMEGA Scholarships

Through the generous sponsorship of the Massachusetts Institute of Technology (MIT) AgeLab, the New England University Transportation Center, and AARP, OMEGA is proud to offer**three new $1000** college scholarships to recognize and reward the efforts that young adults are making to create multigenerational connections in their communities. **High school juniors and seniors** living in one of the six New England states (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont) are eligible to apply for scholarships. Each OMEGA scholarship will award a $1000 college scholarship to the winning student and $1000 to the winning student’s high school organization to support its activities to build relationships between teens and older adults. Three separate scholarships are available; one OMEGA scholarship will be awarded in each of the following categories: Transportation and Community; Technology; and Social Connectivity. The presentation of awards will take place at a ceremony at MIT in spring 2016. **Completed applications are due March 20, 2016**. Applications and more information available at: [http://agelab.mit.edu/college-scholarships](http://agelab.mit.edu/college-scholarships%22%20%5Ct%20%22_blank).

 Questions? E-mailomegamit@mit.edu or call 617-253-3506.

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