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

|  |
| --- |
|   |
|   |
|   |

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

|  |
| --- |
| **Science Update** |
| February 1, 2016 |

 |

|  |
| --- |
|   |
|   |
|   |
|   |
|   |

|  |
| --- |
|  |

|  |
| --- |
|  |

**RISTA Update**

We are thankful for all of the information that is shared with us to create this newsletter.   If you are interested in any of the opportunities listed, please contact the organization that is listed in the entry.  Please send any items that you consider relevant to other science educators to ristanewsletter@gmail.com



\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**Upcoming RISTA Events**

Save the Date for the 2016 RISTA Conference:

"Moving Toward an NGSS Classroom"

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

2016 Conference plans are being set.  We have confirmed that our keynote speaker will be Page Keeley, past NSTA President and who has authored a number on formative assessment techniques in science classes.  She is a great presenter and we are eager to welcome her to Rhode Island.  We have also selected our science educators from K-16 to present on topics related to NGSS, including lesson ideas and useful resources.  Our conference registration link will be online soon!  Be sure to check www.rista.us for the link.

**NGSS Information and Resources:**

Science Teachers Learning: Enhancing Opportunities, Creating Supportive Contexts

([Free pdf Download](http://www.nap.edu/catalog/21836/science-teachers-learning-enhancing-opportunities-creating-supportive-contexts%22%20%5Ct%20%22_blank)) 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:**

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

URI Extension Outreach Center is pleased to announce the 3rd annual School Garden 101 Conference!

February 16, 2016 | 9:00 - 3:30 p.m.

URI Feinstein Providence Campus

80 Washington Street, Providence RI

Join us this year in Providence to share best practices and innovative lesson plans that help kids achieve academic success through garden-based learning. Our dynamic conference is designed to empower educators to take advantage of outdoor classroom spaces, thus enabling school districts to meet their academic and wellness goals. This full-day professional development opportunity is suitable for everyone involved with school gardens: formal and informal educators, school administrators, parents and community leaders. We look forward to seeing you in February!  Details and registration here.

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.** TheBias & 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

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.

Free Seeds from URI Extension

The URI Extension Outreach Center is pleased to offer

**FREE SEEDS**! This program is made possible annually through the generous donation of seeds by **Ocean State Job Lot**, and through the efforts of our

**URI Master Gardener Program** volunteers.

Vegetable, flower and herb seed packets are now available for schools, Boy Scout and Girl Scout troops, 4-H clubs, community gardens and any education-based or youth group for only the price of postage!

**To download order form and view pickup instructions** **VISIT THIS WEBSITE**

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](http://www.rista.us/resources/Documents/K_5_Leadership_Academy2016rev1_13_16B.pdf%22%20%5Ct%20%22_blank) and [6-8](http://www.rista.us/resources/Documents/Middle_School_Leadership_Academy2016rev1_13_16B.pdf%22%20%5Ct%20%22_blank)) 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.

Inner Space Center News

**February Vacation Tours**

During the upcoming February 2016 school vacation week, we will be offering two additional public tours. This is a great opportunity to bring the kids and see what goes on at our facility for ocean exploration.

February vacation tours will take place on:

Monday, February 15 at 11 a.m.

Wednesday, February 17 at 3 p.m.

Our standing monthly tour is scheduled for Tuesday, February 2 at 3 p.m.  These tours are open to the public and the cost is $5 per person.  To reserve a spot for any of the February tours, visit our website

**Explore With Us**

Book your 2016 Inner Space Center education programs today!  The ISC offers educational programs

 for school, youth, and public groups on a variety of topics, including the unknown ocean, sound in the sea, and hurricanes.  All of our programs are led by an ocean scientist with expertise in the area.  Groups can also add a behind-the-scenes tour of our facility, which includes mission control, the production suite, and studio. Groups can also choose to have an educational program done at their location or conducted virtually from the ISC.  For more information, contact the ISC Communications Coordinator, Romy Pizziconi, romy@uri.edu

6-day educator training workshop in Bermuda at the Bermuda

Institute of Ocean Science (BIOS) June 20-25, 2016

Presently there are 12 Connecticut schools that participate in field study courses at BIOS. (Amity HS, Hamden HS, RHAM HS, Fitch HS, Rockville HS, Marine Science Magnet HS, Sound School, Milton Academy, Greens Farm Academy, Vernon MS, Tolland MS, Har-Bur MS) If you think your students could benefit from this educational opportunity, you might be interested in this summer professional development workshop that will prepare you to lead your own school field study course at BIOS in the future.

This Educator Training Workshop offers middle and high school teachers, curriculum specialists, administrators, pre-service teachers, and informal educators the opportunity to learn how to plan and execute future educational field study courses for their students at BIOS. Between June 20-25, 2016, up to 12 participants will take part in this educational workshop and explore themes for potential future visiting groups such as:

• Oceanography and Marine Science: including lab and STEM activities, coral reef exploration, and low tide collection of certain species.

• An introduction to cutting-edge Glider technology, and how these underwater robots can revolutionize ocean studies and student involvement in the classroom.

• Island Ecology and Geology: Nonsuch Island conservation of rare and threatened species (including the Cahow) and habitats.

• Bermuda and U.S. History: Colonization of St George’s, Revolutionary War, War of 1812, Civil War.

• Scientific Exploration Past and Present: William Beebe, global climate initiative and AUV gliders.

During the 6-day workshop at BIOS, attendees will be provided with an overview of local attractions and the way in which these can be integrated into future educational experiences for students.

Participants will explore Whalebone Bay, Cooper’s Island, and Fort St. Catherine, and highlights such as Nonsuch Island, the beautiful North Rock Reef, the city of Hamilton, and the Bermuda Aquarium, Museum and Zoo. Participants will get to know local Bermudian terminology, get a unique perspective on the historic town of St George’s, and learn more about the geography of Bermuda.

Enrolment for this educational workshop is limited to 12 participants, tuition fee is $1085.

For further information please contact: Ed Argenta, BIOS educator: edandpat74@comcast.net

Citizen Science Professional Development for Educators

Are you a formal or informal educator interested in Citizen Science?  Learn how to integrate real-life science into your instruction and earn continuing education credits, all from the comfort of your own home!

NEON’s Citizen Science Academy (CSA) offers online professional development courses for environmental science educators looking for out-of-the-box ways to teach scientific concepts by immersing your students in collecting, using and interpreting scientific data. By implementing citizen science projects, your students will contribute to research used by scientists all over the country. All CSA courses qualify for graduate-level continuing education credits from Colorado School of Mines.

Ready to learn how to incorporate citizen science projects into your classroom? Register for one of our courses starting February 2nd and April 4th. Learn more at http://CitizenScienceAcademy.org/online-courses

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

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:**

Is America's Next Top Young Scientist in Your Classroom?

Now open for entries, the Discovery Education 3M Young Scientist Challenge encourages 5th-8th grade students to share their big idea that applies science to life to help solve an everyday problem. Submit a 1-2 minute video for a chance to win $25,000, an exclusive 3M mentorship and more!

**Looking for inspiration?**
Encourage your students to utilize these great inspirational brainstorming ideas

FAQs  and  video tips  [Get started here](http://www.youngscientistchallenge.com/enter?utm_source=DiscoveryEducation&utm_medium=1MM&utm_campaign=YSC_1.26.16" \t "_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.

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

NASA's 2015-16 Cassini Scientist for a Day Essay Contest

 NASA's Cassini Scientist for a Day essay submission form is now online for U.S. entries.  Please note that the essay should be submitted by the student's teacher, and that the U.S. contest deadline is February 26, 2016.

http://saturn.jpl.nasa.gov/scientistforaday/

When essays are submitted, a certificate of participation is automatically generated.  Please be sure to download and print this certificate for your student(s) who took the time and effort to write essays for the contest.

If you make the essay a class assignment, there is a simple way to generate certificates for students whose essays weren't in the top three on the online submission form.  Please also email scientistforaday@jpl.nasa.gov with a list of students who wrote essays that weren't in the top three so that we have accurate metrics as to how many students participated in the essay contest.

Junior Science & Humanities Symposium

The Junior Science and Humanities Symposium (JSHS) is designed to challenge and engage students (Grades 9-12) in science, technology, engineering or mathematics (STEM). Individual students compete for scholarships and recognition by presenting the results of their original research efforts before a panel of judges and an audience of their peers. Opportunities for hands-on workshops, panel discussions, career exploration, research lab visits and networking are planned.

JSHS aims to prepare and support students to contribute as future scientists and engineers -- conducting STEM research on behalf of or directly for the Department of Defense, the Federal research laboratories, or for the greater good in advancing the nation's scientific and technological progress. The 2016 JSHS Southern New England Regional Forum will be held at Boston University on Friday, **March 18**. Professor Bennett Goldberg, Director of STEM Education Initiatives at Boston University, and Michael Dennehy, Director of College Access and Completion in the School of Education, will be serving as co-directors of the symposium. Please see the information page and list of important dates.

National Youth Science Camps

The NATIONAL YOUTH SCIENCE CAMP is an honors program for two high-achieving high school students from each state in the United States and others from around the world. This residential summer experience is held in a rustic setting in West Virginia’s eastern mountains and has honored and challenged over 5,000 participants since it began in 1963.  Application Deadline is **February 17, 2016**

GOALS

       Honor high-achieving science-oriented students

       Introduce new scientific topics, especially those not typically covered in traditional secondary curriculum

       Encourage lifelong learning in science, technology, engineering, and mathematics

       Demonstrate relationships among the sciences and between science and other disciplines

       Prepare students to face challenges of college, career, and life-long education

       Develop creativity, instill self-confidence, and foster camaraderie among future leaders

More information is at https://nysc.fluidreview.com/

Printable Handout