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

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| Science Update |
| April 27, 2016 |

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| http://www.rista.us/resources/Pictures/IMG_0055.jpg*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***Headline News Story**What Makes a STEM School? That is the question that is most often asked. There have been so many panels (K12, Higher Ed, political, policy, and industry), meetings from the White House to the schoolhouse, research think tanks and numerous case studies to define what STEM is and what makes a STEM school and we are still asking this question. Although some are attempting to answer this question by justifying the literal acronym for the taxonomy of STEM, this is too simplistic and takes away from the true mission and meaning of STEM. [Read more](http://www.mmsend53.com/link.cfm?r=2061533959&sid=94119761&m=12594085&u=NSTA&j=33163367&s=http://www.p21.org/news-events/p21blog/1872-stem-a-deep-definition)**NGSS Information and Resources:**Have you seen www.nexgenscience.org lately?Big makeover at the main NGSS site!  Everything is still available but it has sections that are specific to teachers and parents.  Check it out if you haven’t been in a while.[www.nextgenscience.org](http://www.nextgenscience.org/)STEM Teaching ToolsNew research-based practice briefs have been added, all are available online or to download in pdf format for color printing.  See [www.stemteachingtools.org](http://www.stemteachingtools.org/)Research & PracticeThrough collaborative efforts, the Research and Practice Collaboratory has gathered and published an extensive set of resources that can help to support STEM education and NGSS implementation.  Review the resources at <http://researchandpractice.org/resources/>Next Generation Science Assessment**Next Generation Science Assessment (NGSA)** is a set of projects that are designing formative assessments for classroom use aligned with NGSS.Our current work centers on developing technology-enhanced assessment tasks, rubrics, and accompanying instructional resources in physical science and life science for middle school classrooms.  The team who is developing this site includes Joe Krajcik and Jim Pellegrino.  The tasks are still being developed several are available at <http://nextgenscienceassessment.org/about/team/>Next Generation StorylinesThe Next Generation Science Storylines project is dedicated to providing tools that support teachers in developing, adapting, and teaching with strongly aligned NGSS materials in classrooms around the country.  Framework author, Brian Reiser, heads the team developing this resource.  Find the resource at [www.nextgenstorylines.org](http://www.nextgenstorylines.org/storyline-team/)Phenomenal Phenomena!One key part of NGSS implementation is to engage the students in a phenomena to get them hooked.  As we plan lesson sequences to meet NGSS, the need for an index of possible phenomena has grown.  TJ McKenna, of the NGSX Project, has begun to index possible phenomena for use with NGSS lessons.  You can also submit ideas for additional phenomena that can engage students in topics from the NGSS.  It is in its early stage, but looks like a great set of resources.  See them at[www.ngssphenomena.com/](http://www.ngssphenomena.com/)Teachers Try ScienceThrough a project with the New York Hall of Science (NYSCI) and Achieve, [**Teachers TryScience**](http://cdefoundation.us11.list-manage.com/track/click?u=12f41d9e21b0b5f903c74f0ef&id=af09683067&e=2ff96d4c0d) now features a growing set of resources that demonstrate how educators can use the [**Educators Evaluating Quality in Instructional Products (EQuIP) rubric for Science**](http://cdefoundation.us11.list-manage1.com/track/click?u=12f41d9e21b0b5f903c74f0ef&id=4bcbeace99&e=2ff96d4c0d) to evaluate and revise existing K-12 lessons in order to better meet the goals of the NGSS. NGSS@NSTA Hub (new resources are listed!)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 at ngss.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:**Calling all teachers and parents of RI children in grades K-5!  Taterthon 2016 is here!**What is Taterthon?** Taterthon is a project of the Scituate High School NEED Club intended to help reduce fossil fuel use by encouraging more children to get involved in growing food, specifically potatoes! When we buy food from the grocery store, more fossil fuels are used than if we grow it ourselves using organic practices. How to participate? Go to[**http://www.taterthon.org/**](http://www.taterthon.org/) and click on "How to Participate." Parents and teachers can sign up to receive participation kits. Kits include a potato, instructions, and a blank notebook. Teachers can request classroom sets. Deadline to sign up is June 1. The sooner requests are submitted, the sooner growing can begin. Prizes will be awarded based on the quality of the notebooks which must be submitted to Scituate High School NEED club by September 30. The school whose students have the greatest participation will receive a prize. Visit the website to learn more. 10th Annual Summit on Climate and Sustainability This year’s theme is *Climate Change and Its Impacts on Wildlife, Habitats, and Human Health*.  200+ students from middle and high schools across the Greater Boston region and beyond will attend.  Join us for great speakers, exciting workshops, cool activities, free food, door prizes, and a day of sustainability education!  Register online at the link below after April 15th to get the workshop you want.**Location:** MIT Building 34-101, 50 Vassar Street, Cambridge, MA**Date:** Saturday, May 14th, 2016 from 9:00 AM - 2:30 PM**Details:** Event is open to the public (youth and adults) & is FREE!  **Register** **Here:**<http://radius.mit.edu/programs/10th-annual-youth-summit-climate-change>**Contact Info:****YouthCAN Faculty Advisor:**Cate Arnold   catebarnold@aol.com**Summit Schedule:**9:00 – 10:00   Registration/Check In10:00 – 11:00 Welcome, Keynote Speaker11:00 - 12:00 Workshops12:00 - 1:30 Lunch/Exhibitors/Activities1:30 – 2:45 Networking, Next Steps & Door Prizes!**Organizers -**[Boston Latin School YouthCAN](http://www.blsyouthcan.org/BLS_Youth_C.A.N./Welcome.html) & the [Technology & Culture Forum at MIT](https://radius.mit.edu/)NEED is Back in RINEED is back in Rhode Island for a free one day workshop in Providence on May 25th.  Please share with a new teacher at your school.  If you have never attended or feel you need a refresh we would love to have you as well.  Thanks for any help you can give.  See the link to registration. <http://events.constantcontact.com/register/event?llr=hyzzrodab&oeidk=a07ecjf0baj84800464>Leadership at Sea: Professional Development for TeachersMystic Seaport and the schooner [*Victory Chimes*](http://www.victorychimes.com/) are pleased to offer a special joint professional development program for teachers. This is a unique, multidisciplinary teaching and learning experience that is designed to share the resources available to teachers at Mystic Seaport, and to provide an extraordinary environment for learning and connecting with others on board the schooner*Victory Chimes*, a national landmark vessel that represents our living heritage. This program can accommodate up to 24 teachers.  Participating teachers will also learn how they can involve their school in the upcoming Leadership at Sea program for students in 2016-2017.* ·      Shore Component: August 2-4, 2016 at Mystic Seaport
* ** Sea Component: August 18-22, 2016 on board the schooner *Victory*
* *Chimes*, sailing out of Rockland, ME.

Cost: $1,295/person, includes room and board for entire program (if housing is not needed for shore component, subtract $80)**Shore Component at Mystic Seaport (August 2-4, 2016), Mystic CT****Sea Component on board *Victory Chimes* (August 18-22, 2016), Rockland, ME****Registration Information**Please download the [**Leadership At Sea registration form**](http://www.mysticseaport.org/wp-content/uploads/Leadership-At-Sea-registration-form_.pdf) and send the completed form to Kristi Otterbach at    **breathwind11@gmail.com** by April 30, 2016. For questions about the sea component contact Kristi; for questions about the shore component, contact Sarah Cahill at sarah.cahill@mysticseaport.org.Annual Charles and Marie Fish Lecture--Tuesday, May 3, 2016“Inside the Eye: Improving Hurricane Forecasts," a public lecture by Dr. Christopher Landsea, Science and Operations Officer, National Hurricane Center,12:00 Noon - 1:00 pm, Corless Auditorium, University of Rhode Island Narragansett Bay CampusThe lecture is free and open to the public. The talk will also be live streamed and archived at <http://www.gso.uri.edu/fish-lecture-2016>For information or directions call 401-874-6211.Narragansett Bay Classroom is taking reservations for classroom field experiencesThe Narragansett Bay Classroom, URI Graduate School of Oceanography (GSO) outreach program, offers marine science programs tailored to the requesting group.  The ‘on demand’ programs can be presented at your location, at the URI GSO Bay Campus and at various RI marine related field sites.  A sample listing of some of the programs offered can be found on the URI Office of Marine Programs website.  [http://omp.gso.uri.edu](http://omp.gso.uri.edu/)   Historic South Ferry Walking Tour –Wednesday, July 20, 2016, 10:30-12:00pm& Wednesday, August 3, 2016, 10:30-12:00pmLocal Historians Bernice and Wayne Durfee will be giving a 45-minute public lecture and slide presentation on the fascinating history of the South Ferry Village area in Narragansett, RI. Beginning with the late 1600's land purchase, the area's use for shipbuilding, several ferry services, a steam engine generated wool and cotton mill - on through to the acquisition of the land by the US government for use as a strategically placed military installation.  The presentation will be followed by a 30-minute walk to the remaining gun turrets on campus and ending at the South Ferry Church.For room locations, information or directions call [401-874-6211](file:///%5C%5Clocalhost%5Ctel%5C401-874-6211). Beachcombing for FamiliesSunday, July 17, 2016, 10:30-12:30pm &Sunday, August 14, 2016, 10:30-12:30pmFree two-hour beachcombing experience, led by a URI Graduate School of Oceanography Outreach Scientist, will explore one of Rhode Island's unique coastal beaches.To register for this event please call the Office of Marine Programs at [401-874-6211](file:///%5C%5Clocalhost%5Ctel%5C401-874-6211).ENDEAVOR OPEN HOUSESaturday, September 10, 2016To celebrate Research Vessel Endeavor's 40th anniversary, the University of Rhode Island's Graduate School of Oceanography will host a public open house at the Narragansett Bay Campus from 10 am to 4 pm on Saturday, September 10, 2016, including tours of R/V Endeavor, a touch tank for kids, and exhibits about Narragansett Bay, oceans, and marine life. Tours and exhibits are free and open to the public. Food will be available from local food trucks. For information visit [www.gso.uri.edu/event/endeavor-open-house](http://www.gso.uri.edu/event/endeavor-open-house)For more information or directions call [401-874-6222](file:///%5C%5Clocalhost%5Ctel%5C401-874-6222).Are You Ready for the Astronomical Event of the Decade?August 21,2017 will be the first total solar eclipse visible in the US in almost 40 years.  Everyone in the US will see a partial eclipse, but only those people in a narrow 60-mile across band will see the total eclipse.  The website<http://eclipsewise.com/solar/SEgmap/2001-2100/SE2017Aug21Tgmap.html> provides an interactive map where you can get details regarding the eclipse for your location and where you have to go to see the total eclipse.NSTA (National Science Teachers Association) produced an Eclipse Observing Guide ([http://www.nsta.org/publications/press/extras/files/solarscience/SolarScienceInsert.pdf](http://www.nsta.org/publications/press/extras/files/solarscience/SolarScienceInsert.pdf%C2%A0);;) that you will find useful. It provides details about the solar eclipse, what causes it, and how to view it safely.The eclipse may seem some time away, but housing along the path of totality is already filling up, so the time is now to beginning planning for this astronomical event of the decade.NECAP Test DevelopmentThe 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 link 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) Feel free to share.Fathom Dedicates July Dominican Republic Voyage to STEM for Students and Teachers[Fathom](http://www.mmsend53.com/link.cfm?r=2061533959&sid=94119067&m=12594085&u=NSTA&j=33163367&s=https://www.fathom.org/) , the pioneer in social impact travel and Carnival Corporation's (NYSE/LSE: CCL; NYSE: CUK) 10th and newest brand, today announced it is tailoring Fathom's July 17 [Dominican Republic voyage](http://www.mmsend53.com/link.cfm?r=2061533959&sid=94119068&m=12594085&u=NSTA&j=33163367&s=http://blog.stemconnector.org/fathom-dedicates-july-dominican-republic-voyage-stem-students-and-teachers) to the exploration and study of Science, Technology, Engineering and Math (STEM). Fathom is committed to increasing interest in these topics to help build confidence among children and young adults to pursue and succeed in STEM studies. The brand will also host this year's highly anticipated Clean Tech Competition, a unique worldwide research and design challenge for pre-college youth.CITGO Fueling Education Program Drives Importance of STEMCITGO Petroleum Corporation invites elementary and middle school teachers to enter its fourth annual Fueling Education Program, focusing on the importance of engaging young students in [STEM]. Through April 30, teachers in grades K–8 are encouraged to visit [www.fuelingeducation.com](http://www.mmsend53.com/link.cfm?r=2061533959&sid=94119069&m=12594085&u=NSTA&j=33163367&s=http://www.fuelingeducation.com) for the chance to win STEM-related prizes to benefit their classrooms and schools, including the Grand Prize of an in-school teacher training session with "America's Science Teacher," best-selling author, and Emmy-award winning television personality, Steve Spangler. Check out the website for free STEM Resources!Google for Educators: The Best Features for Busy TeachersImplementing a quality STEM education program means pulling together resources and people that don't always work together easily. Edutopia has a [great article](http://www.mmsend53.com/link.cfm?r=2061533959&sid=94119070&m=12594085&u=NSTA&j=33163367&s=http://www.edutopia.org/google-for-educators) highlighting tools from Google for Educators. We think you'll agree that these resources "whether old and familiar or new and improved, will keep teachers and students inspired, inventive, and organized."NSTA and ASTC Debut New Online Journal Bridging In-School and Out-of-School STEM LearningNSTA and the Association of Science-Technology Centers (ASTC) have released the first issue of [*Connected Science Learning*](http://www.mmsend53.com/link.cfm?r=2061533959&sid=94119071&m=12594085&u=NSTA&j=33163367&s=http://csl.nsta.org/) , an online journal for STEM educators. The journal showcases highly effective programs, practices, collaborations, and research taking place between the formal and informal science learning communities. Sign up [today](http://www.mmsend53.com/link.cfm?r=2061533959&sid=94119072&m=12594085&u=NSTA&j=33163367&s=http://csl.nsta.org/) for the free journal.NSTA Upcoming ConferencesNSTA Conferences offer the latest in science/STEM content, pedagogy, and research to enhance and expand your professional growth. Take advantage of these unique opportunities to collaborate with Science/STEM/NGSS 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 at [www.nsta.org/conferences](http://www.mmsend53.com/link.cfm?r=2061533959&sid=94119073&m=12594085&u=NSTA&j=33163367&s=http://www.nsta.org/conferences/) *See you at these NSTA Upcoming Conferences:*NGSS Summer One Day Institute: July 15, 2016 in Reno, Nevada STEM Forum & Expo: Denver, July 27–29, 2016**Opportunities for Students**Summer STEM Camp at Naval Station in NewportThe Summer STEM Camp is a weeklong STEM camp here on the Naval Station in Newport for up to 80 students. Students will participate in experiential STEM projects and have opportunities to visit several regional STEM career related sites. We are looking for a few college students who are in STEM fields, or teachers-in-training to help counsel and mentor our students. There are also a number of spots available for high school students to attend the camp. Please see the [attached flyers](http://www.rista.us/resources/Documents/2016%20Navy%20STEM%20Camp%20Application%20Flyer.pdf) and [position descriptions](http://www.rista.us/resources/Documents/Starship%20Poseidon%202016%20Counselor%20Position%20Description.pdf) for the STEM program.Below is contact information if you have any questions:Joe Santos CDR, USN, Military Professor, National Security AffairsNaval War College [(401) 841-2831](file:///%5C%5Clocalhost%5Ctel%5C%2528401%2529%20841-2831)Summer Earn & Learn Boatbuilding ProgramThe Newport Area Career and Tech Center (NACTC) in partnership with Rhode Island Marine Trades Association (RIMTA) brings back its popular "Earn While You Learn" program incorporating work experience, career exploration, safety, leadership development, mentoring, creativity and job readiness. This program is open to youth between 14-16 years old who have expressed an interest in the marine trade or boatbuilding industry.**Benefits:*** project helps youth gain basic, academic and employment skills and gain **paid** work experience
* participants will receive a certificate of completion from RIMTA and earn $200 Visa/MasterCard gift card every other week
* program is 6 weeks, Monday through Thursday, 8am-1pm
* located at Newport Area Career and Technical School located on the campus of Rogers High School

**Students must be:*** ages 14-16
* have daily transportation and be available for an in-person interview
* local resident of Newport, Jamestown, Middletown, Portsmouth, Tiverton or North Kingstown
* available all 6 weeks from **July 11-August 18th**

**TO APPLY**If you know of students who may be interested, please have them fill out the [online application](https://form.jotform.com/60965319227158) by June 1, 2016Massachusetts Society for Medical ResearchAll middle and high school students in New England are invited to enter MSMR's 2016 Student Competition.You are a reporter for a news service that delivers information about research discoveries to teenage science students. You learn all about a particularly interesting breakthrough and submit an Essay, a Poster or a Website about it to your kindly, but demanding, editor-in-chief.The best submissions can win prizes up to $500 and recognition for you and your school at the MSMR Annual Meeting in June. Teachers of the winning students receive modest classroom grants. Middle school students are judged in one division, high school students in the other.Public, private, parochial and home-school students from any New England locale are eligible. Entries must be received by May 9, 2016.  To learn more and to see the Student Packet and Entry Form, [**go here**](http://r20.rs6.net/tn.jsp?f=001yt6HsOUn8c-QB3S_X2lu_IO6Vb-QVcH6WZxO7X8X4J2Q3sqeYOxfjT3sgmuKgS7nn-hIHDagYw5R6VMtqPke2qWQQksga7tGQkFEH-G9G98XtNJcyamKF3yRg3WgTCYgEAa6i3ExLOJ3kc32ai2iesx5EUSIEZzMNgGRkFgmiHEBcSTtLpOugF3KVH5Vud0u&c=pc3bymjb-UD2icCrYMrrt3IKKwPtrZAI7t85fIJkdFcS0u4Rhjax-w==&ch=aWeVfx4bUXkIT26skKgF_34Cfc-PJmWy3IfNy23VMNcEyVYcHfTsPw==)EngineerGirlThis [website](http://www.mmsend53.com/link.cfm?r=2061533959&sid=94119074&m=12594085&u=NSTA&j=33163367&s=http://www.engineergirl.org/) is designed to bring national attention to the exciting opportunities that engineering represents for girls and women. The site was launched in 2001 with input from a specially selected Girls Advisory Board—bright, energetic girls from all over the United States and Canada. In 2012 a new Girls Advisory Board was instituted in order to re-design the site for a modern audience. The website is a service of the National Academy of Engineering (NAE) and grew out of the work of the NAE Committee on the Diversity of the Engineering Workforce.Cool Science CareersThis is a great [website](http://www.mmsend53.com/link.cfm?r=2061533959&sid=94119076&m=12594085&u=NSTA&j=33163367&s=http://www.coolsciencecareers.rice.edu/) for students to explore careers, imagine themselves in different paths, read interviews with scientists, and ask them questions!  |

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