



The Science Explorer

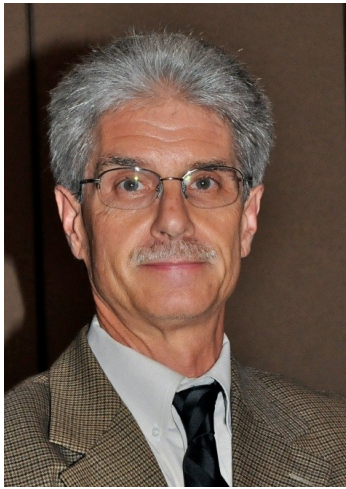
Suffolk Section: Science Teachers Association of New York State

Volume 41

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Spring 2013

The Chairperson's Corner



Glen Cochrane

The 2012-13 school year will certainly be remembered as a year of change in our schools. School districts are addressing the impact by the 2% cap with many cost cutting measures that could impact our science programs. Teachers are now being evaluated with an **Annual Professional Performance Review** (APPR) negotiated between the districts and the teacher unions. I understand that some administrators are requiring that science teachers address the teaching of Common Core State Standards which were adopted by NY in July 2010. Hopefully, some of these changes will have a positive impact on science education, but they certainly have added to the stress. Then with Sandy, school calendars have been modified so many traditional vacation days are now school days.

At the local level, Suffolk County Science Teachers (SCSTA) has been active with a few events and are attempting to stay current with the po-

tential changes in science education in New York State. Melissa Torre chaired our materials and textbook exhibit (MATEX) on Thursday October 18 at the Islandia Marriott. Many vendors were there to demonstrate their latest supplies, books and give out samples. Several nonprofits informed teachers of special programs available for professional development and activities for their classes. In addition, Sheilah Schumann scheduled a tour of Cold Spring Harbor Labs in October and will schedule another this spring.

I attended the STANYS Annual Conference in Rochester the first weekend of November. Once again, it was a wonderful event filled with field trips, activities, workshops, invited speakers, vendors, and good times with science buddies. The Saturday evening field trip to the Rochester Museum and Science Center included a buffet dinner and a full crew of museum volunteers at the exhibits. I was totally impressed with the Strassenburgh Planetarium and its director, Steve Fentress. They had recently installed a computer enhanced, digital, all-sky projection system and Steve demonstrated its capabilities. These new projection systems certainly aren't like "your father's Star Projector." Teachers had the opportunity to choose among hundreds of special workshops and subject area meals from Sunday through Tuesday. Vendors in the exhibit hall gave out many freebies and demonstrated the latest in science supplies. Dr. Tyrone Hayes from UC Berkeley told a wonderfully documented story of his scientific investigation of the herbicide atrazine and its effects on amphibians in his keynote address. Invited

(Continued on page 3)

Special points of interest:

- LISC— St. Joseph's College April 2-3, 2013
- Seal Walk—Sunday, April 7
- Ethology Online Conference April 13-15, 2013
- Suffolk STANYS Annual Conference: April 20, 2013
- STANYS State Board Meeting—May 4
- SCSTA Annual Awards Dinner: May 22, 2013

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WHO'S WHO IN STANYS SUFFOLK SECTION LEADERSHIP

The following people can provide information on membership, teacher workshops and other activities. The Subject Area Representatives (SARs) can provide current information on NY State Education Department Core Curricula and testing programs.

◆Indicates individuals who serve in more than one capacity and for whom contact information is listed only once.

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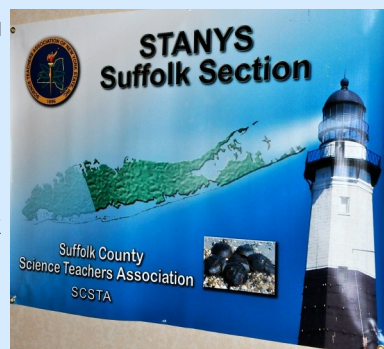
Website & Facebook

Melissa Torre

Suffolk STANYS has its own website at www.SuffolkSTANYS.org. If you visit the website you will get up to date information about scheduled meetings, trips, and events. You will also get access to suggested links separated by subject area & contests your students might be interested in. You can even find some of our newsletters online!

Join the 437 people who liked Science Teachers Association of New York State (STANYS) on [facebook.com](https://www.facebook.com). Keep up with the President of STANYS, Brian Vorwald, as well as other STANYS sections around the state. Connect with science teachers from around New York State.

Don't forget to utilize our state website as a resource: <http://www.stanys.org/>



Chairperson's Corner (continued from page 1)

"It is inspiring to share in what other teachers are doing and see what professional organizations like STANYS are all about. "

speaker, Stephen Pruitt, VP of Achieve, spoke of the progress and status of the *Next Generation Science Standards (NGSS)*. We were told another draft of this document was to be released for public comment in January and the final version released in the spring of 2013. A committee of our educational leaders has been actively reviewing the document as it has progressed through the review process. NY hasn't adopted NGSS and is not known what its im-

pact will be in NY once the final version is available. If you have the opportunity to attend any of the large regional or national conferences, I recommend you do. It is inspiring to share in what other teachers are doing and see what professional organizations like STANYS are all about.

This spring, SCSTA will once again host our Conference and our annual Awards Dinner. Spring into Science Conference will be at Stony Brook University on Saturday, April 20, 2013. Plans are underway to offer you a keynote speaker, workshops, tabletop presentations, and a luncheon.

James Ripka will coordinate the program. If you have anything to share, contact James at Ripka@aol.com. Watch your emails for details and registration information. The Awards Dinner, coordinated by Maria Brown and Brian Vorwald, will honor the top science seniors from Suffolk High Schools. Teachers of Excellence at the elementary and both secondary levels are also honored. The Awards Dinner is scheduled for Wednesday, May 22, 2013 at the Hyatt Regency in Islandia..



Asian Longhorned Beetle

ethology Investigates: Invasive Species

Free Online Conference

April 15-17, 2013



Zebra mussel

Be a part of the next **ethology Investigates** online conference where researchers will present new theories and discuss recent findings on the behavior of invasive species and their impact on the host environment. Animals today are regularly confronted with novel situations – destruction of habitat, introduction of new predators or new food sources. Studies on invasive species can yield critical insights into evolutionary theory, behavioral ecology, community ecology, developmental physiology, and conservation practice.. This three-day event will showcase talks, original articles, and posters on the behavior, physiology, ecology, and impact of invasive species on their host environment. .

Online conferences are modeled after real-life conferences with the advantage that anyone from all over the world can take part. What the virtual environment lacks in face-to-face contact we strive to compensate by online conversation.

Registration: To participate, you will be required to register online beforehand. We will send out an email confirming registration and reminders shortly before the event. To register, go to: <http://www.ethologyinvestigates.com/>

The conference will have three parts to it:

- **Talks or videocasts** which are previously recorded will be released prior the conference. The speakers will be on hand to take questions according to the posted schedule.
- **Papers:** A selection of articles on invasive species previously published in the journal ETHOLOGY are freely available for all to read and the authors will be available for discussion.
- **Posters:** A selection of posters on invasive species will be posted on the conference website, and the authors will be available for discussion.

Materials and Textbook Exhibit (MATEX) Provides Free Materials for Teachers

Suffolk STANYS hosted the annual Materials and Textbook Exhibit on October 18 at the Islandia Marriot. There were 20 vendors including microscope companies, publishers, non-profit organizations, and the Suffolk Section Subject Area Representatives (SARs). Over 80 people attended and the event raised needed funds that will support the activities of the Suffolk Section. We would like to thank all of our vendors and volunteers for their participation and contributions to science education on Long Island. Special thanks to Melissa Torre for organizing and coordinating the successful event.



Melissa Torre coordinated the exhibit, and also shared some of her Earth Science activities.



Right: Tom of Other Worlds Fossils with Christopher Marotta of Stony Brook University. Other Worlds Fossils offered amazing fossil specimens at very affordable prices.



Left: Suffolk STANYS SARs James Ripka and Ashley Bloch brought activities for Chemistry and Middle Level teachers. of Stony Brook University.





Left: David Sandomir of Micro-optics demonstrated microscope technology. Right: Steve Malusa and Sue McGuire, teachers from Three Village Schools, review some materials exhibited by Frey Scientific.



NYSUT Representatives answered questions about APPR, and new teachers learned about available resources.



Vendors included science supply companies, such as Frey Scientific (opposite page) and New York Microscopes, as well as publishing companies, such as Pearson.

Opportunities for Teachers & Students



Science Programs at Stony Brook University – Summer 2013

The Center for Science and Math Education (CESAME) at Stony Brook University is once more sponsoring a series of summer programs for teachers and students.

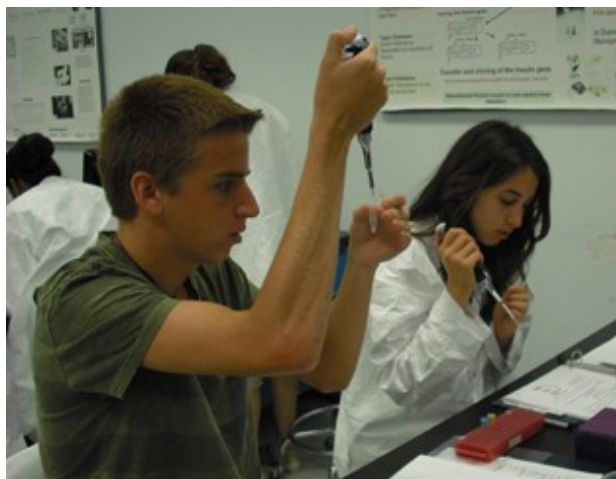
Elementary School Science – Real World Science

This program for teachers, with support from the Toyota Foundation and the Howard Hughes Medical Institute – will focus this year on elementary school science, grades 3-6. The program is open to teachers anywhere in New York State who hold elementary certification and are teaching grades 3-6. Applicants can apply for either of the two sessions: the week of July 8 or the week of July 15. Full details about the program and the application form can be found at the CESAME web site: <http://www.stonybrook.edu/cesame/teachers/RealWorldScience.shtml>

Summer Camps for Middle and High School Students

Two to four week camps on topics that include Biotechnology, Forensics, Science Exploration, Mathematics, Engineering, and Physics (new for this summer). See the CESAME web site for more details: <http://www.stonybrook.edu/cesame/students/k-12.shtml>

CESAME Programs for Students



The *Center for Science and Mathematics Education (CESAME)* at Stony Brook University invites middle and high school science teachers to bring their students to work in our state-of-the-art laboratory facilities to do inquiry experiments that are rooted in real world science.

CESAME offers five-hour lab experiences in Biology, Chemistry, Earth Science and Physics for Regents and AP level classes. These experiences are designed to expand on material that is addressed in the Core Documents for each science, and to meet some of the more advanced laboratory skill requirements for AP classes. More information about the Teaching Labs and how to schedule a field trip for your classes can be found at the CESAME web site: ■

<http://www.stonybrook.edu/cesame/students/ScienceTeachingCenter/scienceteachingcenter.shtml>

Selected Earth Science Sites of the Week from Mark Francek

Geology

Site Name	Atlantic Canadian mega-Volcanoes Blamed in Mass Extinction
Site URL	http://www.cbc.ca/news/technology/story/2013/03/22/science-end-triassic-mass-extinction-volcanoes.html
Description	A new study shows that eruptions in Morocco likely kicked off the end-Triassic mass extinction, while eruptions in the northeast of North America continued to add to these mass extinctions about 3,000 to 13,0000 years later. The end-Triassic mass extinction set the stage for dinosaur domination. This article is summary of an article from <i>March 21, 2013 Science</i> .

Water

Site Name	The Water Cycle: Learn About It and See It in Action
Site URL	http://thewaterproject.org/resources/the_water_cycle.asp
Description	"In this site, you'll find some helpful information and links to experiments and resources about the water cycle for use in the classroom or at home. We hope these resources help you introduce the importance of clean, safe water to your students."

Weather

Site Name	Surface Meteograms
Site URL	http://weather.unisys.com/surface/meteogram/index.php
Description	"A meteogram is a time cross-section of data for a specific surface reporting station. The data plotted include temperatures, winds, pressure, clouds and present weather. These data are updated hourly at around 50 minutes past the hour."

Site Name	Using NASA Data for Weather Lesson Plans
Site URL	http://mynasadata.larc.nasa.gov/students/
Description	"MY NASA DATA is an online avenue whereby educators can bring NASA data into their classroom and provide students with real-world science experiences. The website offers a growing collection of over 120 standard based lesson plans to help teachers get started with data exploration."

Site Name	An Abbreviated Guide for Teaching Climate Change from AAAS
Site URL	http://www.project2061.org/publications/guides/climate.pdf
Description	"Drawing on several Project 2061 resources, the guide focuses on the ideas and skills that are central to understanding the science of climate change, the process of scientific inquiry, and the trade-offs and constraints implicit in making choices about technology."

Experience Seminars on Science

Online Courses for Educators



Since 2000, *Seminars on Science*, an online professional development program at the **American Museum of Natural History**, has engaged thousands of educators around the world in cutting-edge research and provided them with powerful classroom resources. The program offers twelve online graduate courses in the life, Earth, and physical sciences. Each course is rich in essays, images, videos, interactive simulations and vibrant discussions that connect learners to the Museum's scientists, laboratories, expeditions and specimens. Graduate credit is available for all courses through partnerships with eight colleges and universities.

Upcoming course offerings have been posted for this summer and next fall.

Summer 1: May 27—July 7, 2013

Earth: Inside and Out, The Ocean System, Genetics, Genomics, Genethics, Evolution, The Solar System, Space, Time and Motion, Climate Change, The Link Between Dinosaurs and Birds, Sharks and Rays

Summer 2: July 1—August 11, 2013

The Ocean System, Genetics, Genomics, Genethics, Evolution, The Solar System, The Diversity of Fishes, Earth: Inside and Out, In the Field with Spiders, Water

Fall 1: September 23—November 2013

Water, Earth: Inside and Out, Evolution, Space, Time and Motion, Genetics, Genomics, Genethics

Register by May 13 for Summer Session 1.

For more information and to register go to:

<http://www.amnh.org/learn/Courses>

Phone: 800-649-6715

Email: seminfo@amnh.org ■

Brookhaven Lab Open Space Stewardship Program

The Open Space Stewardship Program (OSSP),

Web: <http://www.amnh.org/learn/OSSP>

sponsored by Brookhaven National Laboratory office of educational programs, fosters partnerships between schools and land stewards in their local communities. Students in grades K through 12 directly interact with nature as they collect data within their community.

This program is designed to:

- * benefit land stewards in the management of their property
- * help students to learn about the scientific process through working with real-life data in the field
- * promote scientific literacy
- * encourage students to consider careers in science and technology
- * foster a sense of civic responsibility and respect for the environment

Students in grades K through 12 are involved in authentic environmental research on properties in their own communities, fostering a sense of ownership and responsibility for open space within their neighborhoods. Each June students and teachers who participated in OSSP are invited to BNL for an OSSP

evening celebration at which students display and present their work to teachers, parents, scientists and others in the environmental community. For more information, contact Mel Morris, mmorris@bnl.gov or call 631-344-5963.



Students from Paul J. Gelinas JHS with Mel Morris (left) and their teacher Gary Vorwald (right). The students presented their study of the Setauket Mill Pond water quality at the OSSP Evening Celebration held at Brookhaven National Lab last June.



SPONSORED BY TOWN OF BROOKHAVEN - Conducted by Eileen Gerle, Environmental Educator

West Meadow Beach

Spring Environmental Programs

April - June 2013

Spring Beach Cleanup - Saturday, April 27, 9:00 am

In honor of Earth Day and the upcoming beach season, why not come down to West Meadow and help clean up debris deposited by winter **storms**. This is a great community service activity, and scouts can satisfy badge requirements. **Latex gloves supplied. Work gloves, closed shoes recommended.**

International Migratory Bird Day Saturday, May 12th 11:00 am – 2:00 pm

West Meadow Beach is a stopover destination for many species of migratory birds. We'll celebrate the incredible journeys of our fine-feathered friends during this fun-filled, educational, family event. This year's theme is **Life Cycle of Migratory Birds: Conservation Across the Americas**.

Bird Walks ~ Crafts & Games ~ Displays ~ Live Bird Demonstration

Horseshoe Crab Walks

Did you know that horseshoe crabs really aren't crabs, despite their name? Learn all about these fascinating "ancient mariners" that spawn at West Meadow each spring, and take a walk down the beach to look for pairs coming ashore to nest. **DATES: May 25, June 8, June 21, July 6 6:30 – 8:00 pm**

Birding Walks

These walks will highlight spring migrants as well as the year-round avian residents of West Meadow Beach. We'll be on the lookout for warblers, orioles, plovers and other shorebirds, herons, egrets, and Ospreys. Walks last approximately 2 hours. **April 20 9:30 am; May 11 7:00 am; May 25 8:00 am; June 8 7:00 am; June 29 8:00 am**

Seasonal Nature Walks

Learn about the flora and fauna of West Meadow Beach. These hikes will highlight animals that are seasonal visitors, in addition to the yearlong residents of the peninsula, and focus on the plant communities that make up beach habitats. Binoculars suggested, comfortable shoes, hat, a must. Walks last approximately 2 hours.

April 27, May 25, June 15 at 2:00 pm

RESERVATIONS ARE REQUIRED FOR ALL PROGRAMS

Meet at the Covered Pavilion at West Meadow Beach, Trustees Road, Stony Brook

E-mail your reservation to egerle@brookhaven.org

**Programs will not be conducted in inclement weather. Dates and times are subject to change.*

Award Opportunities for Teachers

STANYS Teacher Awards

Glen Cochrane, Awards Committee Chairperson

As we are already gearing up for the next STANYS conference in November, we are looking for teachers to submit applications for the **Excellence in Science Teaching Award**. This award honors one elementary, one intermediate, one high school and now one college educator who have been devoted to inspiring students and colleagues alike. There is also special recognition for a **Fellows New Teacher Conference Award**. To be selected, the applicant must: have commenced the second through fifth year of full time teaching in September, have never attended the STANYS Conference, be a member of STANYS (upon application), attend this year's full conference, submitted an application letter and a recommendation from a principal or department leader. The **Anton Banko Award for Excellence in Teaching Primary Science** recognizes an educator in early elementary grades who is an outstanding teacher of science. The award covers expenses (up to \$1500) to attend the STANYS annual conference and provides a \$500 stipend for the purchase of science material for the classroom.

For the Excellence in Teaching Award, you will need to describe and provide evidence on four aspects of your professional teaching career. We ask that you first present your philosophy of science teaching. The second aspect is to describe for us how you implement your philosophy of science teaching in the classroom. The third aspect is to provide evidence of the effectiveness of your philosophy of teaching. We are looking to see

not only letters of recommendation from colleagues, administrators, parents and students but you could also include publications, student work, articles, pictures—the list is endless! The final aspect that we ask for you to provide to us is a description of your professional involvement, not only in STANYS, but also with your school and your community. Two copies of your application, along with application entry form are due by July 1st.

More in depth information can be found on the STANYS website about both of these awards, www.stanys.org. Click on the "About" on the blue banner and then click on the **STANYS Excellence in Teaching Award**, **Fellows New Teacher Conference Award**, or **The Anton Banko Award for Excellence in Teaching Primary Science** links in the right column. On these pages you will find not only more information, but also a link to the application entry form as well as the rubric by which all applications are compared. You may also contact me with any questions or for more information: gblink735@gmail.com.

If you would like to nominate an individual for these awards, email me your name, that individual's name, position and contact information by May 1, 2013. I will contact that nominee and it will be up to them to complete the application process. Don't wait until the last minute! STANYS knows that we have excellent science teachers and we want to recognize you for the great things that you do. Let us know who you are and what you are doing! ■

Mary Bonanno, recipient of the Anton Banko Award, with keynote speaker Dr. Tyrone Hayes and STANYS President Brian Vorwald.



Fellows New Teacher Conference Award 2013

Melissa Torre, Fellowship Committee Chairperson

The Fellows Endowment Fund, created in 1984, enabled the STANYS Fellowship Committee to establish a conference award for new teachers starting in 1992. The award supports the attendance of a since teacher in his/her **second to fifth year teaching** at the annual STANYS Conference. Three nights at standard double rate & full registration (includes two dinners & one breakfast) are covered by this award. The recipient is responsible for costs related to travel, Saturday events, & meals not included in registration.

We are pleased that the fund has benefited promising new educators for a number of years. We hope their association with STANYS will continue to be a part of a lifelong commitment to professional development.

If you are a new teacher, we welcome your application. If you are a veteran teacher, please encourage your new colleagues to apply. To be selected the applicant must meet the following criteria:

- * Has commenced no more than their fifth year of full time teaching in September 2013
- * Has never attended the STANYS Conference
- * Is a member of STANYS (upon application)
- * Will attend the conference (Sunday, November 3 through Tuesday, November 5)
- * Has submitted an application letter & a letter of recommendation from a principal or department leader

In the letter of application, the teacher should address the following questions: Why do you wish to attend the conference? How will this award help you? How did you hear about the STANYS organization? Please include your home & school address, phone numbers, e-mail address, grade level & courses taught.

The recommendation from the principal or department leader should include comments concerning the following: How will the applicant's attendance at the conference benefit your district? Does s/he show evidence for a promising career in science teaching? If the teacher does not receive the award will they be allowed to participate in the conference? Please verify that the applicant is entering no more than their fifth year of teaching & will be able to attend the full conference.

Application letters must be postmarked by July 1st, 2013 & mailed to

Melissa Torre
STANYS Fellowship Committee Chairperson
1030 9th St.
West Babylon, NY 11704

Applicants will be notified of their status in early September . ■



Suffolk STANYS members with environmentalist Fabian Cousteau, who gave the Fellows Address on the importance of our oceans at the annual conference. Pictured from left: Brian Vorwald, President of STANYS; Lou Gittler, Sayville HS.; Sheilah Schumann, VP Membership; Fabian Cousteau, Sonja Anderson, Environmental SAR, and newsletter editor Gary Vorwald.

Subject Area Representative (SAR) Reports

Scavenger Hunt - Prezi Style! Sonja Anderson, Environmental SAR

So its the heart of winter and if you're like me, you are looking for a fun project to liven up the classroom. I stumbled across a great idea that can be applied to almost any environmental topic there is! I know I have written about using Prezi before, but as a quick recap - Prezi.com offers users a unique presentation experience. It is the new PowerPoint. Prezi uses concept mapping and offers a more creative solution to presenting ideas. So here's my idea: A scavenger hunt!

I have searched prezi.com and there are presentations that people have shared publicly but it got me thinking about topics in environmental science and having the students apply what they learn in the classroom to the real world. Start with an image from Google Maps of your school. Have the students complete a scavenger hunt around the building using cameras (most have them on their phones now) and they can impose their photos directly on the map using Prezi. They can "walk" the teacher virtually through where all of the examples of what they

were looking for were found. I was thinking about the topic of energy. They can have a list of ideas that they have to find examples of and place in the proper location on the map. The application to the real world is a great connection that is often lost on students and this is a great way to bring it back to the classroom.

It's a fun activity that I think the students will really enjoy. [Prezi.com](http://prezi.com) is free to educators and has many online tutorials that can help anyone get started! Check it out!! ■

2013 Summer Science Explorations at The Portal to Discovery™

(a partnership between the Long Island Matrix of Science and Technology and the
Office of Educational Programs at Brookhaven National Laboratory)

Teacher Professional Development Programs

Teachers are invited to participate in professional development workshops listed below or they may choose from one of our student programs to gain content knowledge while observing students actively engaged in a variety of STEM-based hands-on activities.

Molecular Ecology and Evolution of the Southern Flying Squirrel - This course is intended to provide hands-on STEM training in both the field and laboratory and act as a mechanism to develop a course lesson based on the Common Core.

Date: June 24-27

Time: varies due to field work, generally 9-4 p.m.

Cost: \$300

Location: Sayville High School

SOAR: Aeronautical Engineering for K-6: Alignment to the Common Core – Participants will be introduced to elementary physics related to flight, propelled and un-propelled. All participants will receive a complete set of workshop materials including PowerPoint presentations and design templates.

Date: July 29-August 2

BROOKHAVEN
NATIONAL LABORATORY



Two New Drinking Problems – Liquid Nitrogen and Hand Sanitizer

James Ripka, Chemistry SAR

Gaby Scanlon, from Heysham, Lancashire, was celebrating her 18th birthday with

friends at Oscar's wine bar and bistro where she drank two shots of the liqueur Jagermeister, which was laced with liquid nitrogen.

Liquid nitrogen is extremely cold and only exists at temperatures of between -210°C and -196°C . It starts to evaporate the moment it comes into contact with room temperature air, creating a dramatic dry-ice effect. Liquid nitrogen, which has a boiling point of -196°C , is used for a variety of things, such as a coolant for computers, in medicine to remove unwanted skin, warts and pre-cancerous cells, and in cryogenics, where scientists study the effect of very cold temperatures on materials.

It has also become increasingly common at top restaurants as a method for instantly freezing food and drinks, or creating an impressive cloud of vapor or fog when exposed to air. The avant-garde cooking technique was arguably made famous by Chef Heston Blumenthal, who put nitro-scrambled egg and bacon ice-cream and nitro-poached aperitifs on the menu at his Berkshire restaurant. Miss Scanlon said she felt fine after her first drink but suffered "excruciating pain" the moment she drank the second, offered to her by the bar man because it was her birthday. "I'd been warned by the barman the drink might make me a bit gassy, so I didn't think too much of it, but then my stomach started to expand and I felt sick," she said in an interview with the Daily Mail. "Soon I was doubled up with pain. People were asking me if I was all right, but I couldn't say anything because my stomach hurt so much. Everyone went into a panic. I couldn't

talk, I could barely walk and everything was just a blur of pain."

Miss Scanlon's friends drove her to Lancaster Royal Infirmary and a CAT scan found a large perforation in her stomach. Her whole stomach had to be removed and surgeons connected her esophagus, which takes food from the mouth to her stomach, directly to her bowel. She can now only eat very small meals. Doctors say her small intestine will, over time, adapt - creating a pouch to digest her food, but she faces a lifetime of pain. "I feel angry that these theatrical cocktails seem to be aimed at younger people, especially 18-year-olds who are just legally able to drink and want to go out and try these things, but it's not worth it."

For laboratory personnel in particular, there is also the risk of asphyxiation if liquid nitrogen - which is colorless, odorless and tasteless - is used or spilled in a confined space. Lab worker James Graham died from asphyxiation in 1999. Liquid nitrogen also has a large expansion ratio on evaporation - one liter of liquid nitrogen can result in about 700 liters of gas - so only a relatively small volume of liquid nitrogen has to evaporate within a room to result in an oxygen deficient atmosphere. Pressure can build up in a sealed container due to the boil-off of nitrogen gas, so insulated vacuum-jacketed pressure containers are used to store it.

Another new fad among teenagers is drinking hand sanitizer. Hand sanitizer has greater alcohol content than many hard liquors. Teenagers can be pretty creative in their pursuit of a cheap buzz. Now we've got teens quaffing hand sanitizer, and ending up sick in the

ER. Hand sanitizer is commonly 62-65 percent ethyl alcohol. Ethyl alcohol is the chief ingredient in alcoholic beverages such as wine, beer and hard liquors. With 62-65 percent ethyl alcohol, liquid hand sanitizer is about 120 - 130 proof. By comparison, vodka runs around 80 proof. This means that just one or two gulps of sanitizer will produce the same intoxication as several shots of hard liquor. A spike in the number of teenagers who became ill after drinking hand sanitizer in Los Angeles County — 16 cases in March and April, according to the California Poison Control System. Now there's a flurry of reports from other parts of the country, too. "Parents should regard hand sanitizer as you would a medication," Keep it tucked away, inconvenient, to be sure, but "it does give you some measure of control."

Based on articles from:

Weathers, Helen. "I was almost killed by a liquid nitrogen cocktail." Daily Mail. 26 October 2012 <http://www.dailymail.co.uk/health/article-2223745/I-killed-liquid-nitrogen-cocktail-The-novelty-drink-forced-surgeons-remove-teenagers-stomach-18th-birthday.html>

Nancy Shute. *Teenagers' Latest Bad Idea: Drinking Hand Sanitizer*. Health News from NPR. 25 April 2013. <http://www.npr.org/blogs/health/2012/04/25/151372857/teenagers-latest-bad-idea-drinking-hand-sanitizer> ■





Great Earth Science Links

Melissa (Montauk) Torre, Earth Science SAR

I have taken the liberty of putting together some great websites that I use to enhance my Earth Science classroom. All of these links are free and easy to use. Some of these sites you might use already but hopefully some are new and will come in handy. If you have any that you would like to share please e-mail me at mmontauk1@optonline.net or post them on our STANYS facebook page.

<http://webs.cmich.edu/resgi/>

This website contains links which are organized alphabetically around the sequence of topics typically taught in an introductory earth science or physical geography class. The sites selected are based on image quality, ease with which lesson plans can be developed, organization, authenticity, scope, and format.

<http://www.earth2class.org/>

Earth2Class (Earth to Class/E2C) is a unique science/math/technology resource for K-12 teachers, students, the general public, and geoscientists. It is a collaboration among researchers and an Earth Science educator at the Lamont-Doherty Earth Observatory of Columbia University; technology integration specialists from Colégio Bandeirantes, São Paulo, Brasil; and classroom teachers from New York, New Jersey, and elsewhere.

<http://external.oneonta.edu/mentor/listserv.html>

This listserv provides a forum for discussion and professional support of teachers of Earth Science. This is an especially active list with subscribers from all across the United States.

<http://reviewearthscience.com/>

Throughout this entire site you will find links to various earth science regents preparation items aimed at helping students prepare for the earth science regents. The materials include: earth science regents review sheets, practice earth science tests/quizzes, earth science regents review games, earth science related PowerPoint presentations and more earth science review materials.

<http://www.earthscienceworld.org/images/search/index.html>

The Earth Science World Image Bank is a service provided by the American Geosciences Institute (AGI). This Image Bank is designed to provide quality geoscience images to the public, educators, and the geoscience community. The Image Bank now has over 6,000 images available to search, making it one of the largest sources of Earth Science imagery available on the web!

<http://www.superteachertools.com/instantclassroom/>

Instant Classroom provides a fun, free and easy way to manage your classroom online. Easily create an unlimited number of classes with up to 100 students each. Manage your classes online with a seating chart maker, random name generator, and classroom group maker.

<https://www.remind101.com/>

Remind101 is a safe FREE way for teachers to text message students and keep in touch with parents. Teachers never see students' phone numbers and students never see theirs. Students and parents sign up by sending a text message or email. Add up to 10 classes. Instantly send a message to a class of students or their parents. ■

Suffolk Members at STANYS Conference - Nov 2012



Dr. Tyrone Hayes from UC Berkeley told a wonderfully documented story of his scientific investigation of the herbicide atrazine and its effects on amphibians in his keynote address at the conference. Pictured with Dr. Hayes are Suffolk STANYS members Gary Vorwald, Sheilah Schumann, Melissa Torre, Brian Vorwald, Angela Lukaszewski, Glen Cochrane (back), Sonja Anderson, Lou Gittler, Alice Veyvoda, and Ron Hendrickson.



Suffolk Table at the Hall of Sections with Melissa Torre and Glen Cochrane.



Science Olympiad Tournaments a Huge Success

Glen Cochrane

This was quite an event filled year for the Eastern LI Regional Science Olympiad C Division. It was scheduled for February 9th, but a major blizzard the day before deposited well over two feet of snow. We re-scheduled for February 23rd which would normally been part of a vacation week. However, due to Sandy, most schools were in session at least some of the preceding week so the new date presented little issue. Registrations came in late and we were concerned that the continual talk of budgetary issues would impact the event. I know a few schools had to stop competing and others lost buses but most of the regulars came and we even had a new school, Kings Park. Fifty teams representing twenty-eight schools from Suffolk County gave their best efforts competing in 23 events. Teams of up to 15 students competed in a wide range of science and technology events. The students solved problems on disease, designer genes, forensics, circuits, water quality, thermodynamics, astronomy, dynamic planet, rocks and minerals, forestry, and material science. Our engineers constructed and tested gravity vehicles, maglev vehicles, boomlevers, elastic gliders, and robot arms.

This year we the event was hosted by Ward Melville High School in East Setauket. It is a beautiful facility and thanks to Mr. Owen, the Ward Melville coaches, a superb custodial staff, and the generosity of the Three Village District, the Olympiad went without a hitch. Their team of student volunteers served breakfast and lunch in the cafeteria. The teams were delighted with a multimedia program showing the Olympians competing in the day's events to start the awards ceremony. Thanks to the over 100 coaches and volunteers all events were well supervised and scored. A contingent of pre-service science teachers from Stony Brook University

joined us and was treated to a day of science excitement.

Ward Melville High School, from the Three Village CSD in East Setauket came in 1st place, followed by Half Hollow Hills East, Port Jefferson, Commack, Brentwood, and West Babylon.

These top 6 teams in the Eastern Region advanced to the state competition held on March 8 & 9 at Monroe-Woodbury High School in Central Valley, NY.

The State Competition involved twenty-five events with the top teams from all regions of the state. The competition was very intense, but two teams from Suffolk placed in the top 3 spots. Ward Melville High School placed first, defeating perennial champion Fayetteville Manlius High School (FM), from Syracuse, for the first time in over 10 years. Half Hollow Hills East HS, from Dix Hills, placed 3rd, only points from 2nd place. Ward Melville and Fayetteville Manlius High Schools will represent New York State at the National Science Olympiad Tournament which will be held in May at Wright State University in Dayton, Ohio.

Any school that isn't currently competing should consider joining the fun. The Science Olympiad is a program that offers our science students an opportunity to apply the skills we dream we could do in our classrooms. Students' problem-solve, organize, evaluate their skills, interact with the online communities, study content, build devices and test them. All areas of science are addressed as team leaders recruit interested and talented science students. Most significantly, competitors have fun and walk away with the confirmation that science is cool.

Anyone interested in starting a team can contact me for information and



Glen Cochrane, Suffolk STANYS Chairperson, coordinated the C Division Eastern Long Island tournament.

advice. Teams begin organizing in the early fall. When schools register, coaches receive a coach's manual with a description of the events. Each year the Board of Directors at the National and State level propose and decide which events are kept and what new events will be offered. Students split up the events and the preparations begin. Many coaches attend regional coach's clinics to get insight and tips from experienced coaches and event writers. For more information, go the National Science Olympiad web site (<http://www.soinc.org/>) and you'll find lots of useful information. For more information on how to register a team, go to New York State Science Olympiad at:

<http://newyorkscioly.org/> ■

Winning High School Teams Eastern Long Island Regional Tournament



1st Place: Ward Melville High School



2nd Place: Half Hollow Hills HS East



3rd Place: Port Jefferson High School



5th Place: Brentwood High School*



* Photo not available for 4th place team, Commack High School

Suffolk County Teams Place 1st and 3rd at “C” Division New York State Science Olympiad Tournament!



Ward Melville High School, East Setauket placed 1st and will represent NYS at the National tournament in May.



Half Hollow Hills East HS, Dix Hills, placed 3rd, just a few points behind 2nd place Fayetteville Manlius HS, Syracuse.

Thirty Four Suffolk County Teams Compete for Gold at Eastern Long Island “B” Division Regional Tournament

The B Division (grades 6-9) Eastern Long Island Science Olympiad tournament was a tremendous success again this year. Thirty four teams from 21 different schools throughout Suffolk County participated. The tournament was held at Candlewood Middle School on March 16. Teams competed in 21 different events. Some events were subject specific tests on topics such as Rocks and Minerals and Anatomy. Some events were technology and engineering events in which students built devices in advance, such as Boomilever, Mousetrap Vehicle and Helicopter. Other events tested scientific inquiry skills such as Experimental Design. The top five teams are Islip MS (fifth place), Port Jefferson Middle School (fourth place), Accomsett Middle School (third place), R. C. Murphy Junior High School (second place), and Paul J. Gelinas Junior High School (first place). These schools will represent Suffolk County at the New York State Tournament, which will be held April 12-13 at Syracuse University.



Regional champions Paul J. Gelinas JHS, East Setauket



R. C. Murphy JHS, Stony Brook, placed 2nd.



Grant Opportunities

Funder: Toshiba America Foundation

Program: Classroom teaching of science and mathematics

Summary: Our grants fund the projects ideas and materials teachers need to innovate in their math and science classrooms. TAF is interested in funding projects designed by teachers or small teams of teachers for use in their own schools. Our grants support public and nonprofit private schools throughout the United States. Grade K-5 applications are accepted once a year on October 1st. Grade 6-12 applications for \$5,000 or less are accepted on a rolling basis throughout the calendar year. Grant requests of more than \$5,000 are reviewed twice a year. Applications for grants of more than \$5,000 are due February 1st and August 1st each year.

Deadline: Open

Contact: 212-596-0620

URL: <http://www.toshiba.com/taf/>

Funder: Time Warner Cable

Program: Connect a Million Minds

Summary: Non-profit organizations and the hands-on learning opportunities they provide are often the catalyst that sparks a young person's lifelong exploration of science, technology, engineering and math. Time Warner Cable's Connect a Million Minds is always looking for exciting, new organizations we can engage in our efforts. We invite you to apply for support which includes cash grants and in-kind donations. Organizations may apply for cash support, which includes grants, project support, scholarships, etc., or in-kind support. To be eligible, your organization must provide youth (ages 11-18) access to hands-on STEM learning opportunities in after-school settings. Applications will be considered on a rolling basis.

Deadline: Open

URL: http://www.connectamillionminds.com/request_support.php



Funder: American Honda Foundation

Program: Youth education

Summary: Funding priorities are youth education, specifically in the areas of science, technology, engineering, mathematics, the environment, job training and literacy. Eligible organizations are nonprofit charitable organizations classified as a 501(c)(3) public charity by the Internal Revenue Service, or a public school district, private/public elementary and secondary schools as listed by the U.S. Department of Education's National Center for Education Statistics (NCES). In addition, qualifying organizations must have a minimum of two years of audited financial statements. Awards range from \$20,000 to \$60,000 over a one-year period.

Deadline: Open

Contact: (310) 781-4090

URL: <http://corporate.honda.com/america/philanthropy.aspx?id=ahf>



Suffolk members at annual conference: Gary Vorwald (left) checks out the latest science products; right: Alice Veyvoda and Angela Lukaszewski run the exhibits.



BFF: Exhibit Chairperson, Angela Lukaszewski (right) with her trusty assistant, Alice Veyvoda



Science Matters, formerly *Building a Presence* (BaP), is an electronic network initiated by the National Science Teachers Association (NSTA). STANYS is the lead organization in NYS. The purpose of Science Matters/BaP is to reduce isolation of teachers of science, K-16, and to keep them informed about professional development in their region, the state, and nationally. Points of Contact can sign themselves up as PoC's. The Point of Contact for his/her school receives digital information that will then be shared with colleagues. At present, there can be more than one PoC per school. It is important that you be a

Science Matters to all Teachers and Students!

Nancy Ridenour

part of this network to receive information about grant opportunities and professional development.

Please consider being a Point of Contact (PoC) for your school. The success of this network requires all buildings to be represented. Easy step by step directions can be found at: <http://www.stanys.org/progbap.htm>

The **Science Matters** website is: <http://bap.nsta.org/Content/Home/BecomeAContact/Default.aspx>

There are three options as a Point of Contact:

a. If you are representing all the teachers of science in your building, be sure to include all the grades, and all science subjects for teachers

whom you are representing, not just what you teach.

b. If you are representing a subset of teachers in your building, be sure to include just those grades and subjects of teachers you represent, not just what you teach.

c. If you are representing just yourself, include just the grade(s) and subject(s) that you teach.

Please consider volunteering as a PoC. You will be a great resource for your colleagues and students.

If you have any questions, contact Nancy Ridenour at: nridenour@twcny.rr.com ■

Suffolk STANYS Board Members at Dinner Planning Meeting

Top left: STANYS President Brian Vorwald, Gary Vorwald, and Penny Vorwald. Top right: James Ripka and Sheilah Schumann. Bottom left: June Dawson, Angela Lukaszewski, and Maria Broan. Bottom right: Maria Brown with Brian Vorwald.



SCIENCE on LONG ISLAND

MAKE A DIFFERENCE

There Couldn't be a Better Time to be a STANYS Member!

STANYS MEMBERSHIP helps us to be the best science teachers we can be. If you are not yet a member or if your membership has lapsed, please join and become part of New York's oldest and most respected professional association of science educators!

STANYS supports its membership through: *Networking, Friendships, and Collaboration; Professional Development Workshops; STANYS' Annual State Conference; Updates on what is Happening in Education throughout the State; State Science Congress and Science Olympiad Information; Access to the STANYS DALs and SARs; The STANYS Newsletter; E-Blasts; The Science Teachers Bulletin; Section Meetings and Updates; and Opportunities for Leadership*

Your membership in STANYS
INCLUDES membership in **Suffolk Section**
—
TWO for the price of one!

AND the Suffolk Section of STANYS is all about Service to You, the Long Island Science Teacher!

Suffolk Section publishes several newsletters each year. Each issue includes SAR articles disseminating current information in each discipline, a Chairperson's report which addresses state updates and other issues in science education, details about local science contests, workshops, and field trips, and other items of interest ***specifically to Long Island educators.***

Suffolk Section provides Conferences and Workshops throughout the year, offering information ***directly pertaining to teaching on Long Island***, presented by local experts -- classroom teachers just like you! These gatherings provide opportunities to learn more about your discipline, get information about local activities, and provide the chance for networking with colleagues. Lab activities, innovative teaching strategies and demonstrations are just part of what's offered!

Suffolk Section offers Professional Development Hours close to home, and ***directly related to teaching on Long Island.***

Suffolk Section hosts MATEX (Materials and Textbook Exhibit) each October. Vendors display and discuss the latest textbooks, science equipment, and field trip opportunities. ***Free Admission and Give-aways*** are always a part of the program!!

Suffolk Section holds an Awards Dinner each May honoring outstanding ***Suffolk County*** high school seniors and exemplary teachers.

Suffolk Section provides Local Leadership Opportunities and the chance to share experiences with your colleagues ***in districts throughout Suffolk.*** You have an open invitation to each monthly Section planning meeting.

(Continued on page 23)

(Continued from page 22) Membership

**But most importantly, Suffolk Section STANYS provides us,
as Long Island's Premier Science Educators,
the Opportunity to Make a Difference in Education in Suffolk County!**

The Suffolk Section of STANYS is your professional organization - JOIN US TODAY!

Use the membership form below or join electronically using the form at the
STANYS website: <http://www.stanys.org>

For more information, email Sheilah Schumann, Vice-Chairperson, Membership at:
sheilah_s@yahoo.com

STANYS MEMBERSHIP FORM

Please Print	Dues*	Check One	
Date _____ New ___ Renewal _____		1-YEAR	2-YEAR
STANYS ID (If known) _____	Elementary	<input type="radio"/> \$44.00	<input type="radio"/> \$82.00
Name _____	Intermediate/Jr. HS	<input type="radio"/> \$44.00	<input type="radio"/> \$82.00
Street Address _____	High School	<input type="radio"/> \$44.00	<input type="radio"/> \$82.00
City _____ State _____ Zip _____	College	<input type="radio"/> \$44.00	<input type="radio"/> \$82.00
Home Phone (_____) _____	Associate	<input type="radio"/> \$44.00	<input type="radio"/> \$82.00
School/Organization _____	Retired	<input type="radio"/> \$23.00	<input type="radio"/> \$42.00
Street Address _____			
City _____ State _____ Zip _____			
School/Organization Phone (_____) _____			
Preferred Email _____			
Subjects taught or position _____			
Last year of membership _____			
Section to which you wish to belong _____			

Free Student Membership

Enrollment in a teacher preparation program is required. A letter on institutional letterhead by a college faculty member or a cooperating teacher verifying the student's eligibility must accompany this application annually.

Join us for our monthly meetings. They alternate between the first Wednesday or Thursday of each month.

Remaining Dates for

2012-13 are:

Thursday, April 4

Wednesday, May 1

Thursday, June 6

Meetings are at 7:00 p.m. at
BOCES II on Deer Park Ave.,
Dix Hills



Register NOW!

SCSTA Spring Conference

April 20, 2013

The Suffolk STANYS Spring Conference will be held on Saturday, April 20, 2013 at Stony Brook University. The program will include a keynote speaker, a Share-A-Thon and two sessions of a wide variety of workshops. Registration will be online. Look for upcoming details on the Suffolk Section website and on the online teacher discussion groups.

Register online at <http://www.eventbrite.com/event/5848287385/es2005/?rank=1>

Seal Walk

Sunday, April 7, 2013

Join members of the Suffolk STANYS Section on a Seal Walk at Cupsogue Beach in Westhampton on Sunday, April 7th. C.R.E.S.L.I. (Coastal Research and Education Society Long Island) will conduct an educational walk on both the bay and ocean sides of the beach to introduce the five seal species that inhabit Long Island. The walk will begin at 10:30 a.m. The 2 mile (roundtrip) walk should take about 2 hours. The walk is suitable for children so this can be a family trip with younger brothers and sisters. Dress warm, wear comfortable shoes, and pack your own snacks and lunch. Please arrive a few minutes early; no later than 10:15 a.m.

Cost of the trip of the trip is \$10/person. Meet at the west end of the parking lot near the beginning of the nature trail. Cupsogue County Park is located on Dune Road in Westhampton.



Register for the trip on the Eventbrite site at: <http://scstasealwalk2013.eventbrite.com>