

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.

Chairperson

Glen Cochrane
gblink735@gmail.com

Vice Chairperson - Programs

Ashley Bloch
abloch01@gmail.com

Vice Chairperson - Membership

Sheilah Schumann
sheilah_s@yahoo.com

Secretary

Gary R. Vorwald
glacierygary@aol.com

Treasurer

Angela Cigna-Lukaszewski
AngLuke@aol.com

STANYS Directors

Glen Cochrane◆
Melissa Torre ◆

Newsletter Editor

Gary R. Vorwald◆

Awards Dinner Co-Chairpersons

Maria Brown
zostera2@gmail.com

Brian Vorwald
BVorw@aol.com

Health & Welfare

June Dawson

Informal Education

Alice Veyvoda
alveyvoda@optonline.net

Public Relations/Archives

Sheilah Schumann ◆

Science Congress Liason

Angela Lukaszewski◆

Web Master

Melissa Torre ◆

Biology SAR

Glen Cochrane◆

Chemistry SAR

James Ripka, PhD
RIPKA@aol.com

College SAR

Linda Padwa
Linda.Padwa@stonybrook.edu

Earth Science SAR

Melissa Torre
Mtorre@levittownschools.com

Elementary SAR (Open)

Environmental Science SAR

Sonja Anderson
solsen14@optonline.net

Middle Level SAR

Ashley Bloch ◆

Physics SAR (Open)

Retiree SAR

Ed McDaniels
edmcdaniels@hotmail.com

Next Generation Science Standards - Complete the Survey!

The New York State Board of Regents is seeking feedback regarding how New York State should move forward with respect to P-12 science teaching and learning. A survey is being used to collect feedback from various stakeholders in science education. This survey provides an opportunity to evaluate the current New York State science learning standards and the **Next Generation Science Standards (NGSS)** against a set of specific criteria. This is an opportunity for New York science teachers to help shape the future of science education which will impact our careers for many years to come. The feedback received on this survey will be used, in part, to formulate a recommendation from the New York State Education Department to the New York State Board of Regents with regards to potential adoption of the NGSS in New York State.

It is not only important that as many teachers of science participate as is possible, but also that the survey be completed thoughtfully and thoroughly. Ideally, all respondents should read all the NGSS appendices and supporting documents prior to completing the survey. These can be accessed at

<http://www.nextgenscience.org/next-generation-science-standards>

The survey may be accessed at <https://www.research.net/s/NYSEDScienceStandardsSurvey>

It is currently open and will remain open until **Tuesday, October 15, 2013.**

Chairperson's Corner (continued from page 1)

"Teachers and administrators are dealing with the stress and paperwork associated with an Annual Professional Performance Review (APPR)."

ers has made teaching a very difficult job. I am entering my second year of retirement from Hills East and the comment I often hear from classroom teachers is that I picked a great time to leave the classroom. I'm sorry to hear that and I take it as a sign of the current difficulties and issues teachers are facing. The 2% cap has caused a budget crisis for districts resulting in increased class sizes, reduced course offerings, excessing of teachers, reduced professional development, and less money for science supplies. Teachers and administrators are dealing with the stress and paperwork associated with an Annual Professional Performance Review (APPR). Some educators are now defensively documenting everything they do to benefit their students fearing that their jobs are at risk if student performance doesn't meet district standards. STANYS took the position that the failure of students to meet the lab requirement to qualify to take the regents exams is often due to circumstances beyond the teacher's control. The state left the decision to administrator review. I know some teachers were told by their supervisors that students not meeting lab standards would count against the teacher's rating regardless of student attendance! Crazy!

The course content and performance expectations are changing. Career and college readiness for all students is the political mantra and certainly a worthy goal. I always thought that New York was already on this course with our standardized Regents exams along with the requirement that students pass certain exams to graduate high school. The latest plan expects all students to reach additional goals with new standards as measured by extensive testing. The adoption of national standards has been encouraged with the idea that they will raise our students academic success to better compete with other nations. New York adopted the Common Core State Standards for ELA and Math in July 2010 and in January 2011 the Board of Regents approved recommended additions to the Common Core Learning Standards. New York students in grades 3-8 took the first exams last April based on the NYCCSS in ELA and Math. The district

results for these tests are now in the headlines. These scores reflect a change in the tests and the adoption of the Common Core State Standards. Unfortunately, I am dismayed by the state wide drop in student success. Proficiency scores (passing rates) dropped significantly in all districts from past years. I just returned from a rally at Comsewogue High School called "Students Not Scores." Stop it, fix it or scrap it" was the cry of Superintendent Dr. Joseph Rella, board members, union presidents, and many parents. What happened? Were these test rolled out too soon, before teacher training, or without enough curriculum materials available in the style of CCSS? Implications are now being made that the Common Core content and/or the tests may be developmentally inappropriate for our students. I would hope that there was solid research as to whether the revised standards and exams really demonstrate a path to meeting the career and college readiness goals. As a science teacher, I can't judge these new standards or exams for ELA and Math but I can see this path has created much frustration and anger in the community.

What about the new standards for science? You should have heard about the Next Generation Science Standards (NGSS). NGSS is in its final form and available on online at <http://www.nextgenscience.org/> The NYS Board of Regents hasn't made a decision regarding adoption or revision of our current standards (MST Science Core Curricula). We are at a very important point in the future of science education in New York. Changes are inevitable and an update in our cores and assessments should be welcomed. Is NGSS what we want? The Thomas B. Fordham Institute compared NGSS to the science standards of the 50 states. NGSS received a score of C (5 out of 10) and was clearly better than some states but NY Science received a B+ (8 out of 10). This Fordham report has its critics so I think you should make your own comparison of standards. That is exactly what NYSED is giving you an opportunity to do. A survey has been posted online and will be open until October 15 asking us to evaluate the current NYS science learning standards and NGSS against a set of specific criteria. The feedback received on this survey will be used, in part, to formulate a recommendation to the Board of Regents. I urge you to take some time to review both our current standards and NGSS. This is your opportunity to help shape the future of science taught in New York.

(Continued on page 5)

2013 Outstanding Senior Science Awards

Brian Vorwald, Awards Co-Chair

Each year the STANYS Suffolk Section (SCSTA) invites high schools that are patrons of the SCSTA *District Member Services Program* to select an outstanding science student in their graduating class to be recognized at our Annual Awards dinner in May. The students are presented at the dinner by a science teacher of their choice and both are guests of the SCSTA. Last year 26 students were invited to the dinner which was held on May 22nd. It's always the highlight of our year to hear the outstanding achievements of these talented young people. Each student was presented with a plaque commemorating their award. This year, each high school new to our program was presented with a perpetual plaque on which the student's name was inscribed and on which future awardees can be listed. All returning high schools received these plaques at last year's event.

The list of these students and the teachers invited to present them is shown below. SCSTA applauds these amazing students and wishes them well as they embark on their next adventure, their higher education .

High School	Student Awardee	Teacher Presenter
Bay Shore	Emmet Farnan	Joseph Hanley
Bayport-Bluepoint	Shane Trauthwein	Christopher Holgerson
Brentwood (Ross)	Jennifer Gil	Adrienne Davis
Brentwood (Sonderling)	Noman Hamiani	Rebecca Grella
Commack	Rachel Yang	Maura Palillo
Connetquot	Shourik Dutta	Lori Forgione
Deer Park	Liza Chowdhury	David Knuffke
East Islip	Justin Morena	Kathleen Dinota
Elwood-John H. Glenn	Olivia Familusi	Patricia Ladarola
Half Hollow Hills East	Hirai Doshi	Christian Fogarazzo
Half Hollow Hills West	Sandhiya Kannan	Joseph Caligiuri
Harborfields	Jacob Wax	Michael Pinto
Hauppauge	Jonah Belser	Jocelyn Pendleton
Huntington	Bobby Scott	Edward Florea
Lindenhurst	Nathaniel Angeles	Kevin Tonn
Longwood	Joseph DeQuarto	Lucinda Hemmick
Mount Sinai	Nicholas O'Mara	Glynis Nau-Ritter
Sachem East	Pranav Sathyanarayanan	Carl Erickson
Sachem North	Kyle Beigay	William Holl
Sayville	Rebecca Nicole Monastero	Maria Brown
West Islip	Bailey McLaughlin	Mary Kroll
Westhampton Beach	Nicasio Beebe-Wang	Robert Mirra
William Floyd	Zheng Lin	Christiine Brazzelli

The adjacent table lists the Outstanding Senior Science Students who were unable to attend the Awards Dinner. SCSTA congratulates them on their outstanding achievements.

High School	Student Awardee
Cold Spring Harbor	Alexander Szilagyi
Earl L. Vandermeulen	Zachary Graziano
North Babylon	Allison Costantino

Chairperson's Message (Continued from page 3)

The survey is available at <https://www.research.net/s/NYSEDSscienceStandardsSurvey>

It is my position that New York teachers need to be a critical component in development of new science standards. Teachers were a significant component of our current standards (Cores) and are the item writers for the Science Regents exams. I also hope that we are given the necessary time to move our science program and assessments so all stakeholders are prepared and onboard with the new standards. There needs to be adequate time to develop curricula materials and provide staff development so we can provide the best instruction to students. Teachers need to be given samples of what students are expected to do on new exams and those exams must become part of a bank of re-

"The feedback received on this survey will be used, in part, to formulate a recommendation to the Board of Regents. I urge you to take some time to review both our current standards and NGSS. This is your opportunity to help shape the future of science taught in New York."

sources. Learning science should continue to incorporate opportunities to experiment, discover, and inquire with hands-on activities. Teaching to the test should not be the goal, but as seen on the latest Common Core exams, student success on their assessments is important to all. ■



Website & Facebook

Melissa Torre

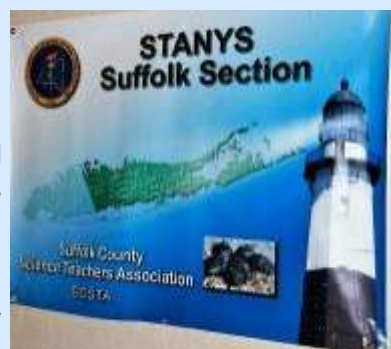
Suffolk STANYS has its own website at www.SuffolkSTANYS.org.

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 hundreds of people who liked Science Teachers Association of New York State (STANYS) on [facebook.com](https://www.facebook.com). Keep up with colleagues from Suffolk County 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/>



SCSTA Teacher Recognition Awards Program



At the annual Awards Dinner teachers are recognized for their dedication and service as science educators. Awards in 2013 were given for Elementary School Level Science Teacher of the Year, Middle School Level Science Teacher of the Year, and High School Level Science Teacher of the Year. Each of these most deserving individuals has performed meritorious service to science education. They've been recognized as outstanding teachers who help students and other teachers both inside and outside the classroom. Each of these individuals received their awards before family, friends and colleagues. Their principals and superintendents were invited to the dinner as the guests of SCSTA. We once again congratulate each of these awardees and sincerely thank them for their contributions to science education. A short biography of each Teacher of the Year is presented below and on pages 7-9.

2013 Elementary School Teacher of the Year

Melinda Moran –Lincoln Avenue Elementary School, Sayville USFD



Melinda Moran has taught fourth grade at Sayville Public School's Lincoln Avenue Elementary School for the last 13 years and has previous experience teaching 3rd grade. Ms. Moran has been active in developing programs for elementary students that extend beyond the school day. These have included: a district-wide STEM learning program entitled "Forensic Analysis of Ancient Egyptian Artifacts from an Archaeological Dig" and "An Elementary Science Technology Engineering and Mathematics (STEM) program called "SOAR," which is an eight-week aeronautical engineering program for accelerated students in

grades 4 and 5. This program interfaced with Motorola's "Connect-to-Tech Program," which provided the opportunity for her students to participate at the Cradle of Aviation Museum's Annual Delta Dart Balsa Airplane competition.

Melinda has created several science units that have included "Animal Adaptation, Inherited and Learned Behaviors" and "Internet Resources in the Teaching of Science for Grades K-5." She has implemented interactive science writing notebooks which facilitate students taking ownership in their learning, a strategy that she has shared with her colleagues. Her advanced students have worked on research projects in areas that include: hydroponics; organic and genetically modified food; childhood obesity and nutrition; clean energy; and holistic healing.

Ms. Moran has provided professional development for other educators, teaching college-level courses that have included Methods of Teaching Science to Children and Brain Based Learning. Melinda's teaching methods are dynamic, varied, research-based, and student-driven. Further, she reaches children beyond her own classroom as a result of her cours-

es, special programs, curricula, and professional development for other teachers. Her colleague, paraprofessional Matthew Banaszak, wrote in his letter of support that, "*Ms Moran consistently inspires student interest and engagement.*" Melinda's principal, Dr. Michelle LeBlanc stated that, "*Ms. Moran is passionate about her work...*" and "*...has demonstrated innovative and integrated practices related to science, which extend beyond her classroom and exceed the expectations of any teacher.*"

Lincoln Avenue Elementary School and the Sayville community is indeed fortunate to have Melinda as an elementary level educator. ■



2013 Middle Level Teacher of the Year

Gary Vorwald, Paul J. Gelinis JHS, Three Village CSD



Gary Vorwald started his teaching career in 1986 at Island Trees Public Schools after working for several years as an exploration petroleum geologist following being awarded his masters degree in geology. For the last 16 years he's taught Earth science, 8th grade physical science, science research, and 7th grade science at Gelinis JHS, while at the same time serving as the science department chairperson. As a life-time learner he has always endeavored to continue his professional growth. One such opportunity was his participation in a field program on the Juneau Icefield in Alaska. Besides gaining first-hand knowledge about glacial geology and glaciology, he developed learning activities that he's shared with colleagues and teachers throughout the state.

He has served teachers throughout our state in many ways. One of his roles was serving as an Earth science mentor for the NY State Education Department and

our local BOCES. He has been an active contributor to STANYS at both the state-wide level and section level. Gary has served in many roles for the Suffolk Section including section chair and Director to the STANYS Board of Directors. He's currently the section's Secretary and Newsletter editor and is the chair of the STANYS Fellows Committee.

A hallmark of Gary's approach in delivering science to his students is providing them with field experiences. He's integrated inquiry activities into his curriculum that utilize investigating features around the school and within the community so that his students learn by doing hands on science. He developed and organized a trip to Niagara Falls in addition to leading family trips to mines and fossil collecting sites. Gary has facilitated astronomy nights during which a state-of-the-art telescope, purchased via a district grant, is used to view the night time sky.

Mr. Vorwald's activities go beyond the end of the school year in June. Some of these activities have included presenting summer workshops for the Eastern and Western Suffolk BOCES and serving as a program instructor at a three-week summer enrichment program at Stony Brook University for 30 gifted high school students from around the state. This involved working in a team approach to consider the feasibility for a future space colony.

Gary has received many other honors, including: National Association of Geoscience Teachers Earth Science Teacher of New York State Award, Harvard Club of Long Island

Distinguished Teacher Award, and the prestigious STANYS Excellence in Teaching Award.

One of Mr. Vorwald's passions has been his involvement in the Science Olympiad Program since 1989. His Gelinis JHS Science Olympiad team is a regional and state-wide powerhouse that rises each year to the top of the NY State competition and goes on to compete nationally, representing NY State. Last year the team placed first in NY State and 8th at the nationals. He's not just the head coach, but is the heart of the team devoting countless hours with the students, after school, on weekends, and during holidays. He shares his expertise with colleagues by presenting each year at the annual Science Olympiad Coach's workshop and also works as an event writer and event supervisor.

One of Mr. Vorwald's former students wrote in his letter of support that Gary, "*...was the only person in my life that instilled confidence in my abilities and drove me to succeed.*" In her letter, Three Village Superintendent Cheryl Pedisich stated that, "*...his teaching and leadership experiences throughout his career have distinguished him as an exceptional teacher and dedicated and passionate educator, who serves as a mentor to both students and staff...Mr. Vorwald serves the children, community, and staff of Three Village with skill and dedication.*" ■

High School Level Science Teacher of the Year

Brad Kenedy, Bay Shore High School, Bay Shore UFSD



Brad Kenedy teaches physics at Bay Shore High School and started his teaching career while in the Peace Corps in Bolivia. As a result of this experience he fell in love with the profession. Brad currently teaches a double section of MST (Math Science and Technology), Honors Physics, and Advanced

Placement Physics. AP Physics enrolment has more than doubled since he started teaching the course three years ago. His students consistently exceed the national average on the AP exam each year.

Mr. Kenedy developed the curriculum for the Science Research program at Bay Shore HS and taught the class for five years. During his tenure teaching Science Research, Brad mentored a student who was a semi-finalist in the Intel Science competition. As a member of Quarknet, he mentored students interested



Brad Kenedy with Glen Cochrane and Bay Shore Director of Science Donna Bertinelli.

in studying particle physics. Quarknet is a long-term, research-based teacher professional development program that is jointly funded by the National Science Foundation (NSF) and the United States Department of Energy. The program offers research experiences for teachers and students. He is a member of the NSF Noyce Dowling Symposium committee and coordinates student registration and judging.

Brad's work doesn't stop at the end of the official school day. He has worked with the high school's PM students and has organized after school and evening reviews for the Physics regents exam, SAT II, and advanced placement exams. Additionally, he organizes the

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Suffolk STANYS Science Teachers of the Year

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annual physics field trip to Great Adventure's Physics Day.

Mr. Kenedy has participated in numerous professional development programs that have contributed to his success. He was an NSF Noyce Grant Recipient and he was involved in programs at Fresno Pacific University, LaSalle University, Dowling College, and Stony Brook University.

Bay Shore Schools Director of Science, Donna Betinelli, wrote in her letter of support, "...that Brad reflects the highest standard of professionalism...and is a highly valued member of the high school science department." High School Principal, Robert Pashkin, wrote that "Mr. Kenedy is a valuable asset to our students and our school. He is a model teacher and exhibits the qualities that any school would look for in an educator." ■



Teachers of the Year: Brad Kenedy (HS), Melinda Moran (ES), and Gary Vorwald (MS)



Above: Melinda Moran with Sayville Superintendent and Suffolk Chairperson Glen Cochrane.



Middle Right: Gary Vorwald with nominator Eileen Gerle, Brookhaven Town Educator.



Bottom Right: Gary Vorwald with STANYS President Brian Vorwald and Glen Cochrane.

Opportunities for Teachers & Students

ToxRAP™: Curriculum for Students K-9

(Toxicology, Risk Assessment & Pollution)



ToxRAP™, an innovative, problem-based curriculum series for grades K-9, helps students and educators understand scientific practices and make informed decisions with real-life applications to reduce their health risks associated with environmental pollutants. ToxRAP™ employs age-appropriate, investigative science, math, health and language arts activities. Modules address national and state education standards and have been indexed to the National Science Education Standards.

ToxRAP™ Modules

Each of the three ToxRAP™ modules are centered around a case study adapted from real-life situations, directly relating exposure to chemical agents with their impact on human health. Students role-play environmental health scientists and conduct active investigations as they learn to recognize, evaluate and control hazards to reduce health risks. The ToxRAP™ Framework is readily transferable to any environmental health risk. At the conclusion of a module, students demonstrate their mastery of the framework by applying it to new case studies.

The Case of the Green Feathers (Grades K-3)

Students use the ToxRAP™ Framework and Map to explain how natural air contaminants, such as pollen, can cause allergic and asthmatic reactions. Students read an illustrated oversized children's book that tells the story of Chick Chock™, a baby chick who awakens from a nap sneezing and covered with green dust.

What is Wrong with the Johnson Family

(Grades 3-6) Students become environmental health scientists and use the ToxRAP™ Framework and Map to conduct an investigation into the Johnson family's unexplained health problems. Students conduct a series of activities and games to help them solve the mystery, while investigating potential air hazards in the home.

Mystery Illness Strikes the Sanchez Household (Grades 6-9)

Students become environmental health scientists to help the Sanchez family discover the cause of their health problems. Students conduct a simulated health hazard investigation following the ToxRAP™ Framework and Map that guides them to an explanation, while learning about the influence of exposure to a hazard on potential health effects.

For more information, contact: UMDNJ-School of Public Health 335 George Street, Liberty Plaza Suite 2200, New Brunswick, NJ 08901 Tel: (732) 235-4988 Fax: (732) 235-4960 Email: cscbre@umdnj.edu

Go to the website for more information:

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





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 has programs for middle school students as well as programs designed for each of the sciences: chemistry, earth science, environmental science, living environment, and physics. The lab activities have been designed to meet the needs of students in Regents, Honors, and AP/IB level classes.

A new offering this year will be a series of professional development opportunities that are currently being developed on topics related to science in the elementary school. Information about this program will be posted on the CESAME website in the near future..

Earth Science Laboratories For Your Students at Stony Brook University

Geoscience Teaching Laboratories for middle and high school students are also available. Earth Science teachers Steve Dickson and Chris Marotta offer programs that give students hands-on learning experience in surveying



topography, measuring weather variables and determining microclimates, measuring porosity and permeability, and modeling real world processes on a stream table. They also offer a Long Island geology field trip to Caumsett State Park in Huntington. Some of these programs can be performed at your school. Through the NSF sponsored GeoPREP program at Stony Brook University, these programs can be provided free to students at high-needs schools.

More information is available at:

www.stonybrook.edu/cesame/students/ScienceTeachingCenter/geoscienceteachingcenter.shtml

More information about all of the programs can be found on the CESAME website:

www.stonybrook.edu/cesame ■

If



CESAME provides opportunities for students to work in state-of-the-art labs at Stony Brook University, or experience natural history in the field. Pictured are students conducting labs (left and top picture) and the cliffs at Caumsett State Park (above) where students learn the geology of Long Island.

Professional Development Opportunities

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.

Registration is now open for the Fall Session. The courses can be taken for up to 4 graduate credits each and run Sept 23– Nov 3. Fall Session 2 runs Oct 28—Dec 8. Courses will also be offered in the Spring and Summer. You can sign up now at learn.amnh.org Since the courses are fully web-based, there is no need to come to the museum at any time and all courses are led by both an experienced classroom teacher and a PhD scientist in the field.

Registration for Session 1 closes Sept. 9 and Session 2 closes Oct. 14. Early registration discount (Session 2) ends Sept. 30th, so sign up now!

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

Let us know if you have any questions—we're happy to talk about the program or the courses. Email or call for more information:

Phone: 800-649-6715

Email: seminfo@amnh.org

Web: <http://www.amnh.org/learn/> ■



October 13-19, 2013

Since October 1998, the American Geosciences Institute has organized this national and international event to help the public gain a better understanding and appreciation for the Earth Sciences and to encourage stewardship of the Earth. This year's Earth Science Week will be held from October 13-19. Take part in Earth Science Week 2013! ESW 2013 encourages people everywhere to explore the natural world and learn about the geosciences.

"Mapping Our World," the theme of ESW 2013, engages young people and the public in learning how geoscientists, geographers, and other mapping professionals use maps to represent land formations, natural resource deposits, bodies of water, fault lines, volcanic activity, weather patterns, travel routes, parks, businesses, population distribution, our shared geologic heritage, and more. Maps help show how the Earth systems – geosphere, hydrosphere, atmosphere, and biosphere – interact.

Go to the Earth Science Week website for more information and free resources:

<http://www.earthsciweek.org> ■

Earth Science Week...
promotes understanding and
appreciation of the value
of Earth Science research
and its applications and
relevance to our daily lives.



Informed by Nature is non-profit organization working to advance the public understanding of science. We are dedicated to encouraging lifelong learning, promoting critical

thinking, and celebrating science, technology, engineering, and mathematics (STEM) disciplines. Our efforts expand from online learning and networking to physical outreach in the classroom and other educational venues.

We are excited to launch our Online Science Fair <<http://www.informedbynature.org/science-fair-projects/>>. Unlike most other such endeavors, our platform offers students the ability to upload, share, and store their projects for years to come. We are also working with educators to help them develop programs around the platform that encourage hands-on, self-guided learning among their students. The integrated social media functionality encourages students to share their work with peers, family, and even future college admissions boards, highlight-

ing their scientific prowess and building pride in their work. This is available for **free** to anyone with an Internet connection, though we are limiting this phase to students age 13 and over because of COPPA guidelines.

Online Science Fair helps you:

- Engage your students in science learning and discovery
- Organize, review, and present student projects
- Enable students to share their work with friends and family
- Encourage students to promote themselves and their work through social media
- Provide opportunities for networking with and learning from their peers
- Support the future! Projects remain live for years to promote the achievements of the present and inspire the projects of the future ■

Brookhaven Lab Open Space Stewardship Program

The Open Space Stewardship Program (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.

<http://www.greenoss.org/index.php> ■



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

Subject Area Representative (SAR) Reports



In July, a group of Nassau and Suffolk Science teachers learned about Edison the Inventor at the Thomas Edison National Historic Park in West Orange, NJ. This historic park location was ten times the size of Edison's Menlo Park location. Edison created the first integrated research complex with more than 100 employees working on a diversity of projects.

The manufacturing buildings have been mostly torn down, the research labs remain. The main three story building held a library, machine shops, experimental rooms, stock room and Edison's office. The ornate library exhibits Edison's roll top desk that was sealed after his death in 1931, and later opened for display more than 15 years later. In his office in the library, a small bed he often slept in was also on display. A cubic foot of copper weighing 486 pounds, seen in the Library, was given to Edison as a gift. Have your students do

Chemistry: Visit to Thomas Edison National Historic Park and Home

James Ripka, Ph. D, Chemistry SAR

the stoichiometric conversion to grams.

The main building also had a display on phonographs and recording apparatus as well as many other inventions. Edison had more than 1000 patents, more than anyone else has

ever had by far. Edison was primarily home schooled and self-taught. He did not care for the formal school classroom and college education of his day. "I always invented to obtain money to go on inventing," said Edison. Although most research projects were assigned to teams of people, Edison maintained his own private lab room for his own experiments. He used an elevator to travel between floors in the main building.

We toured the separate Chemistry building which local area residents said often give off a revolting stench. Glassware similar to what



we use today was evident. Of interest was that the Park Service had "cleaned up" the building removing chemical spills and returning walls stained black from noxious experiments to their original white color. There were no fume hoods. All work was done on open benches.

We also viewed the recreated first movie studio called Black Maria. The studio was on a circular track of about 40 meters diameter, so that it could be rotated to catch

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STANYS 118th Annual Conference

November 2-5, 2013

Rochester Riverside Convention Center

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

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light. The entire outside of the studio and inside was black. A roof section was lifted up and the studio rotated to catch sunlight when filming early movies. One of Edison's failures was his inability to synchronize sound with moving pictures. Although he spent almost twenty years on the project, he was not successful and ultimately gave up.

Of interest were the many modern looking home appliances his company manufactured and sold. Coffee urns, toasters, waffle irons, sandwich grills and electric fans were among his popular "electric servants" for the kitchen. His Nickel-Iron alkaline rechargeable batteries were also very popular, especially for use in underground mining. These batteries combined with light bulbs, relieved the need for miner's candles which could potentially ignite natural gas deposits.

Edison purchased a 29-room brick and wood mansion nearby for his second wife Mina. Edison had three children from his first marriage and an additional three with Mina. However, only one Edison child, a daughter, had children so the line of Edison surnamed children ended. Two Edison boys took over his business but never had children, although they apparently purchased larger homes than their father Thomas.

Tours of the estate are free, however, only a limited number of tickets are distributed. Get to the visitor center early to get tickets to the Glenmont Estate tour. The house tour was very interesting. The house has been beautifully preserved and feels lived in as if people may be coming back and not like a museum. Unfortunately, a no photograph rule is in effect for the home, so no pictures of the interior are available.

I asked the Naturalist why Edison was called the "Wizard of Menlo Park" and not the "Wizard of West Orange"? Apparently the term Wizard was considered to have a negative connotation and suggested that somehow Edison was deceiving people with his inventions from his original lab.

As the research labs are part of the National Park System, bring your Park System pass to visit free or admission is \$7 per person. Leave three to four hours to visit both the research labs and his home.



Earth Science: Review Games for the Science Classroom

Melissa Torre, Earth Science SAR



As many of you might know with games comes some healthy competition but also some students become lazy, expecting the group to carry their weight. This summer I have looked up some new & exciting games as well as tips to keep all the students engaged.

BUMP – Line students up along a wall in your room. Give the students a question. When students know the answer, they raise their hand. Call on a student. If they get the question right, they may “bump” the person on their left or the person on their right (students on each end of the line can bump the person on the other end, as if they were in a circle). That “bumped” student then goes back to their seat. If the student you called on gets the question wrong, then they go back to their seat. The game progresses that way until one person is standing, however one variation involves letting the “bumped” students get back in the game. To keep them involved and engaged, if a standing student cannot answer the question correctly let the bumped students give the answer. If they can get the question right, they can come back in the game.

DART BOARD: set up throwing lines at different distances from the dart board (Velcro dart board). Show or ask a question. Teams try to solve it. The team that gets the answer right first may throw from the first line, team two gets to throw from second line, etc. The team with the most points wins.

STINKY FEET - The rules are so simple, the students answer questions in teams, any and all teams whose answers are correct get to choose a sticky note from the Stinky Feet poster. Each sticky note has a point value written on the back, but this is where the game gets a little stinky. Some sticky notes have positive points, and some have negative. Continue to play the game until you run out of time, sticky notes, or questions. In the end, the team with the most points wins or you can switch it up and have the team with the least points win. If you do this, add extra negative point sticky notes to the poster so that it is seen as a reward for answering correctly, not missing a question.



UPS & DOWNS – (Throw back to Chutes and Ladders) This teacher prints the game boards on a few different colored papers, puts them in sheet protectors & has the students grab a board as they enter the classroom. She then can either group them by the same color or say each group must have one board of each color. Each group gets a stack of Question cards, a dice, game pieces, and an answer sheet. The game is played in small groups rather than whole class. For a template and more information visit the website:

<http://schooloffisher.blogspot.com/2012/09/chutes-and-ladders-review-game.html>

BAZINGA or ZAP – Students are put in teams, a question is asked, if the group answers it correctly they have the chance to pick a Bazinga or Zap Card and must do what it says. Pictures & card ideas are listed on the following websites.

Zap - <http://mathtastrophe.wordpress.com/2012/07/23/made-4-math-monday-4/>

Bazinga - <http://simplifyingradicals2.blogspot.com/2012/05/bazinga.html>

(Continued on page 23)

College: Important Changes in Certification Requirements

Linda Padwa, Stony Brook University

Just as September marks the start of the academic year for schools all over Long Island, it also marks the start of the academic year at colleges in our area. This year, like last year, promises to be full of interesting challenges for all.

While K-12 teachers paid considerable attention to the new vocabulary associated with SLO's and APPR's last year, this coming year will be the time when teacher candidates are going to learn a new vocabulary of their own: ALST, CST, EAS, and edTPA. These acronyms name the new certification exams that will go into effect for those qualifying to be teachers starting in May 2014.



- The ALST (Academic Literacy Skills Test) replaces the former LAST (Liberal Arts and Sciences Test), but is similar in format and scope.
- The CST (Content Specialty Test) has been around for over ten years, but all forms of the test are undergoing revision and the revised tests will be phased in as they become available.
- The EAS (Educating All Students) is a new exam that focuses on the education of students with special needs. Since a course addressing these issues is now required by the state in order to qualify for certification, teacher candidates will be asked to demonstrate an awareness of how to address the needs of all students in their classes.
- The ed TPA (Teacher Performance Assessment) is a portfolio-based exam that is to be completed during the student teaching semester. The ed TPA is composed of three tasks that address all aspects of instruction – from lesson preparation to assessment and everything in between, with the primary focus being on evidence that demonstrates the teacher candidate's ability to enhance student learning.

More detailed information about the new exams can be found on the state web site: <www.nystce.nesinc.com>

A special thank you, in advance, to those who will serve as cooperating teachers for science student teachers from all of Long Island's teacher preparation programs in the coming year. Your willingness to be part of the process as we prepare the next generation of teachers speaks volumes regarding your professionalism. Thank you very much. ■

Review Games (Continued from page 16)

Tips to keep every student involved and accountable:

1. Give each student a record sheet that looks similar to the way the game is set up. No matter which student is officially answering the question all students must work out the problem. At the end of the game all record sheets are collected and graded.
2. After you give the question, all teams have a time limit to discuss the answer. All teams must discuss the answer because if the first team answers incorrectly the other teams can steal the points but with no extra time to come up with the answer.
3. Assign each group member a number. All students in the group must know the answer because students are called on randomly to announce the answer to the class.

I hope some of these ideas can be useful in your classroom this year and years to come. If you have any other ideas that you would like to share please e-mail me at mmontauk1@optonline.net or post them on our STANYS facebook page. ■

Intermediate Level: Organizing Your Classroom? There's an App for That!

Ashley Bloch, Intermediate Level SAR

Right now, we are in the middle of a technology revolution. We hold more computing power in our hands in the form of cell phones and tablets than what was used to place a man on the moon! Various technology applications - "apps", have been specially made for these mobile devices and have entered into every aspect of our daily lives. While we might be more aware of ones that are available to enhance our leisure time, there are several that can allow you to work smarter, not harder, in the world of education. Here are a few that my colleagues and I have used with great success. Best of all, each of these programs are free to use! (Unless noted, all of the following apps are available for both Android and Apple devices.)

Remind 101

Have you ever wished that you could send a text message to remind your students to study for an exam? Or perhaps to remind them to bring in a permission slip or money for a school event? How about letting parents know about tests that might be coming up, or reminding them to check online to see their child's grades? **Remind 101** does just that – without ever exchanging cell phone numbers. Set-up takes less than 5 minutes and allows students and parents to be kept in the classroom loop. I personally liked that I could schedule text messages to be sent at a later time. So, if I knew on Monday that my students were going to take a quiz on Friday, I would set up a text to be sent on Thursday to remind my students to study.

Classroom Dojo

Do you have a difficult to manage class? Is classroom behavior and participation part of your grading policy, yet you find that you have trouble justifying the grade you gave? Then **Classroom Dojo** is the app for you! This app allows you to spend more time teaching and less time managing. You just need to spend a little time setting up your class and then using a basic point system (you can use your own or the one that the program suggests) you are able to start evaluating their behavior. This app will also print reports for student behavior and participation and do all analysis for you, so that you can easily share participation and behavior with parents and administrators.

Dropbox

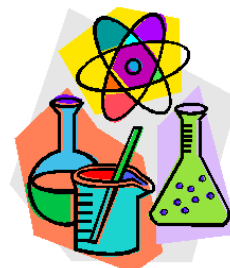
Do you ever find yourself wanting to work on a particular document, only to realize that you left it at home on your flashdrive? Or worse, losing your documents due to flashdrive corruption and not backing it up on another device? Dropbox can help you avoid these problems and more! **Dropbox** allows you to save not only documents, but photos, spreadsheets, videos, and music files to an online server, aka "the cloud". It also allows for easy sharing among colleagues – don't have to worry about passing a flashdrive around for all those to review and look at.

Evernote

This app allows you to remember everything across multiple electronic devices that you own. So, you could start a list of items that you might need for a lab on your classroom computer. Later, when you go to the supermarket, you can pull up the same list on your cell phone and purchase what you can there. That night, you can review the same list on your tablet and see if there is anything that you might need to order special off the Internet.

Next Generation Science Standards

This is the mobile version of the **Next Generation Science Standards**. While it might not be something that you refer to on a regular basis, I found the interface and design of this app to be very clear and very user friendly. In fact, I found it easier to use and understand than the website version. ■



Retiree: New Tests Bring New Challenges

Ed McDaniels, Retiree SAR

Test scores from this past Spring were just released and they were lower than last year. Were you surprised? If so, you haven't been paying attention.

In order to qualify for *Race to the Top* money, New York State, along with 47 other states, agreed to move to the Common Core curriculum. However, NY decided to implement it almost immediately, while most other states wanted to plan out the change, train their teachers and administrators and to develop curriculum, which reflected the different standards being implemented. At the same time this curriculum change was mandated, teachers' evaluations were being contractually tied to test results and new acronyms, APPR and SLO, were added to our vocabulary.

Everyone agreed that these new tests were more challenging, asking more specific questions in very different ways than they had seen before. Reading, not only in ELA, but now in Math, became more detail oriented. A third grader might understand subtraction. But now in the verbal context in which the problem was contained, he or she might not understand what was being asked because of the way it was phrased.

The added pressure on teachers and from parents upped the tension students felt approaching the exam. On the multiple and successive days of testing, there were many students who just began to cry, emotionally exhausted from the pressure they perceived. Reports from newspapers and television added to the tweets and comments read on social networks all contributed to mounting tension.

These new tests were different from the old ones in multiple ways. They were so different in content, scoring and intent that the State said that it would be unfair and inappropriate to compare this year's score to last year's score. Because the State had mandated teacher evaluations be partly based on these scores the State sent a letter to school superintendents saying that maybe we should cut the teachers a break this year and not use these scores to evaluate them like we forced you to include in your contracts. Oops, my bad!

How did you find out about the test results being so bad? Was it in the newspaper, television news, online? Where did you see the disclaimer about this year's tests

only establishing a baseline for future comparisons and thus should not be used for comparison to last year's exam? Yet teachers are being evaluated based on their students "growth" from the previous year's assessment!

The news reports are meant to shock, intrigue and to have you stay tuned for more information. Television will hype promos for upcoming reports with screaming headlines like, "Is this dangerous vegetable in your refrigerator? Details at 11." The dropping of student scores by 20 and 30 points is ideal for this sound bite mentality. The letters to the editors in subsequent days after the release of test scores only proves that everyone's point of view, no matter how dispersant, is reinforced by this calamitous drop. Views from the general public, such as; "teachers are overpaid," "charter schools are the only way to save our country," "my school taxes are too high for these results," "when I was in school we all did much better than today's students," "or my child is going to opt out next year" were commonplace. No matter what your point of view, details be damned, these new test scores prove it. When people have tried to explain the reality of the scores, you get the traditional chorus from naysayers complaining of teachers not accepting responsibility and accountability. Again, the test results prove whatever point of view you already have.

For those still in the trenches and fighting the good fight every day, good luck. My best wishes for a good school year. ■





Suffolk County Teams Place 5th and 8th in the National Science Olympiad Tournament

Two teams from the Three Village Central School District in Setauket represented New York State and Suffolk County at the National Science Olympiad Tournament in May. Extending their award-winning competition season, this year's Ward Melville High School and P.J. Gelinias Junior High School Science Olympiad teams had one of their most impressive showings to date, as both teams placed among the top 10 teams in their divisions at the National Science Olympiad Tournament. During the contest, held this May at Wright State University in Ohio, Ward Melville was ranked fifth and Gelinias placed eighth. In addition to their overall ranking, Gelinias

earned medals in four events (one gold, two bronze and one fifth-place medal) while Ward Melville won seven medals (two silver, one bronze, one fourth-place medal and three fifth-place medals) in this very competitive national tournament.

"It is truly a pleasure to be a part of the most talented Science Olympiad team in Ward Melville history," stated Ward Melville coach Steve Malusa. "It was very exciting and gratifying to see all the hard work from this year culminate in the national tournament," added Gelinias coach Gary Vorwald. "As a teacher and coach, you always

(Continued on page 21)



Ward Melville High School placed 1st in the county, 1st in NYS, and 5th in the Nation!

(Continued from page 20)

want your students to strive for their potential. Science Olympiad has been one of the most gratifying experiences I have had in education. I am honored to have the opportunity to work with such gifted students, and it is so rewarding to see that my efforts have had an impact in helping them achieve their goals.”

Only 60 teams from across the nation were invited to compete at this prestigious competition. Invitation to the national tournament is based on a team's rank at their state competition. Earlier this year, Gelinas' team placed first in the Rustin Invitational, Eastern Long Island Regional and New York State tournaments. Ward Melville placed first in the high school division at the Eastern Long Island Regional and New York State tournaments.

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 all sorts of useful information. For more information on how to register a team, go to New York State Science Olympiad at:

<http://newyorkscioly.org/>



Paul J. Gelinas Junior High School placed 1st in the county, 1st in NYS, and 8th in the Nation!

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://](http://www.connectamillionminds.com/request_support.php)

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://](http://corporate.honda.com/america/philanthropy.aspx?id=ahf)

corporate.honda.com/america/philanthropy.aspx?id=ahf ■

Plan Ahead! April 2014

SCSTA Spring Conference

The Suffolk STANYS Spring Conference will be held on a Saturday in April 2014 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://scsta2011.eventbrite.com/>

If you would like to offer a workshop, share at our morning Share-A-Thon, or have suggestions for a workshop, contact me at gblink735@gmail.com



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

Science Matters to all Teachers and Students!

Nancy Ridenour

school. It is important that you be a 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:



Register Now for 2014 Science Olympiad Competitions

Register your school now for the 2014 NYS Science Olympiad tournaments, which will be held this Winter and Spring. There are two divisions, B for middle level and C for High Schools. Teams of 15 students from each school compete in 16-20 events at regional tournaments. The goal of Science Olympiad is to nurture and encourage excitement about science and engineering. The **2014 Eastern Long Island C Division Regional Tournament** will take place on **February 9, 2014** at Ward Melville High School in Setauket. The **B Division Tournament** will be held in early **March 2014** at a school to be determined. We are looking for a school district to host the event.

For a complete list of events and the registration form, see the New York State Science Olympiad webpage: <http://newyorkscioly.org>

The annual Coach's Workshop is an exciting opportunity for new coaches and seasoned coaches to learn about the competition and events. This year the workshop will be held on **October 25 and 26** at the Ramada Conference Center in Fishkill. Visit the NYS website for a schedule of activities and registration information: <http://newyorkscioly.org/SOPages/Coaches13.html> ■

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

Dates for 2013-14 are:

Wednesday, October 2

Thursday, November 7

Wednesday, December 4

Thursday, February 6

Wednesday, March 5

Thursday, April 3

Wednesday, May 7

Thursday, June 5

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



STANYS Suffolk Section Election Results

May 2013

Chairperson/Director

Glen Cochrane 49

Vice-Chairperson (Programs)

Ashley Bloch 48

Vice-Chairperson (Membership)

Sheilah Schumann 48

Secretary

Gary Vorwald 47

Treasurer

Angela Lukaszewski 49

Suffolk STANYS Director at Large

Melissa Montauk 25

*Angela Lukaszewski 24

The results of our section elections are in the adjacent table. We held the vote electronically and had a significant increase in number of members voting. The Executive Board candidates were unopposed and unanimously elected. Due to the decline in membership in the Suffolk Section, we only qualify for two Director-at-Large positions in the state organization. Glen Cochrane and Melissa Torre will serve as Directors, with Angela Lukaszewski as alternate.

Thank you for voting!