



The Science Explorer

Suffolk Section: Science Teachers Association of New York State Newsletter

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Fall 2010

The Chairperson's Corner



James Ripka, Ph.D

Welcome back. The 2010 2011 school year has begun. This will not be your usual year. Many exciting developments in Science are in store. On the international level, 2011 is the

International Year of Chemistry. Events, activities and programs can be explored at www.chemistry2011.org.

Our local events start with the *Materials and Textbook Exhibition (MATEX)* on Thursday, October 21 from 3-6 pm at the Islandia Marriott Hotel. This year we expect a large number of teachers as a BOCES Certification expert will be present to answer your questions. Please make sure you are con-

tinuing with your professional development. Bring any questions or concerns and have them addressed. MATEX will also have the latest book and scientific supplies to help make your teaching even more dynamic.

Our Annual Conference is scheduled for Saturday, April 2, 2011 at the Wang Center at Stony Brook University. Workshops, a share-a-thon, keynote speaker and networking make

(Continued on page 3)

Special points of interest:

- MATEX - Islandia Marriott: October 21, 2010
- NYS Science Olympiad Coaches Clinic: October 21-22, 2010
- STANYS 115th Annual Conference - Rochester Convention Center: November 6 - 9, 2010.
- Atlantis Marine World: November 13, 2010
- Suffolk STANYS Annual Conference: April 2, 2011
- Annual Awards Dinner: May 2011

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Atlantis Marine World Aquarium

November 13, 2010 (Saturday)

Join your colleagues and friends for a voyage of undersea discovery at Atlantis Marine World, the only public Aquarium on Long Island. The Aquarium offers interactive fun, adventure, and education. Teachers are invited to visit with their families to learn about Sharks and what this unique facility has to offer your students. We will also have an opportunity to participate in a Behind

the Scenes Tour. Themed around the "Lost City of Atlantis," Atlantis Marine World blends science and nature with myth to create an informative and entertaining environment for visitors of all ages. Located on Main Street in Riverhead, along the Peconic River, Atlantis Marine World is Long Island's full-scale Aquarium. Four hours of professional development credit offered through SCSTA.



Look for updates at MATEX, on our website, and through email.

Price: FREE for teachers, group rate for others \$14.40 adults, \$12.00 age 3-12, free less than 3.

Contact Glen Cochrane Call for reservations by November 10 at gblink735@gmail.com or call 631-689-8027. ■

Science Materials and Textbook Exhibit (MATEX)

Thursday, October 21, 2010 3:00—6:00 p.m.

Islandia Marriott

3635 Expressway Drive North, Islandia, NY 631-232-3000

All are welcome. The exhibit is FREE!

As in the past, we expect about 40 vendors to present the most recent textbooks, review books, lab equipment, and computer programs for science educators at the elementary, middle school and high school levels. The vendors are always generous with giveaways and we have many door prizes to be won!! Don't miss this opportunity to find out the latest innovations to be used in the science classroom. Light refreshments will be served.

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

James Ripka, PhD
RIPKA@aol.com

Vice Chairperson - Program

Glen Cochrane
gcochrane@hhh.k12.ny.us

Vice Chairperson - Membership

Sheilah Schumann
sheilah_s@yahoo.com

Secretary

Gary R. Vorwald
glaciergary@aol.com

Treasurer

Angela Cigna-Lukaszewski
AngLuke@aol.com

STANYS Directors

Angela Cigna-Lukaszewski ◆
James Ripka◆
Gary R. Vorwald ◆

Newsletter Editor

Gary R. Vorwald

Awards Dinner Co-Chairpersons

Maria Brown
zostera2@optonline.net
Brian Vorwald
BVorw@aol.com

Health & Welfare

June Dawson

Informal Education

Alice Veyvoda
alveyvoda@optonline.net

Public Relations/Archives

Sheilah Schumann ◆

Science Congress Liason

Lenny Rosa
candlehalf@aol.com

Web Master

Melissa Montauk ◆

Biology SAR

Glen Cochrane◆

Chemistry SAR

James Ripka ◆

College SAR

Linda Padwa
Linda.Padwa@stonybrook.edu

Earth Science SAR

Melissa Montauk
MMontauk@levittownschools.com

Elementary SAR

Sheilah Schumann◆

Environmental Science SAR

Sonja Anderson
solsen14@optonline.net

Forensic Science SAR

Jeannie Guglielmo
jmeberhardt@optonline.net

Middle Level SAR (Open)

Physics SAR (Open)

Retiree SAR

Ed McDaniels
edmcDaniels@hotmail.com

Chairperson's Corner (continued from page 1)

this a fun and productive day of professional development.

This summer, some members took a trip to the Chemical Heritage Foundation in Philadelphia. You will enjoy visiting this free museum located 2 blocks from the Liberty Bell. We also went to the Custer Institute to observe the Perseid Meteor shower. Check out the Custer Institute for a Saturday night of astronomical observations on their large telescopes. Bring your family, the kids will love it. The Custer Institute and Observatory is Long Island's oldest public observatory (est.1927). Open to the public every Saturday evening from dusk until midnight, their staff of volunteers will give you a tour of the facilities and the night sky through their powerful telescopes. Their website is at:

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

This year we plan to continue to offer professional development opportunities and field trips for our members and their families. One of the highlights of last year was our fossil collecting trip to St. Clair, Pennsylvania. The trip was a great success with everyone finding museum quality specimens of 300 million year old ferns.

Everyone took home specimens to be treasured for a lifetime. We are planning trips to the new Science Museum in Connecticut, the American Museum of Natural History, and we are investigating a visit to a site on Long Island that Tesla used to attempt wireless transmission of energy. We'll go seal watching this winter and we will ask the Forensic Chemist for the Drug Enforcement Administration to give her presentation on illegal drug smuggling, detection and teenage friendly marketing of illegal substances to us again.

As a Suffolk STANYS member, you are invited to attend all our events. We prefer to use electronic media to contact you, in order to save time, money, and paper. We will keep you informed of events primarily through email. Look for the words Suffolk STANYS in the subject line. We will also post information on our website: www.SuffolkSTANYS.org.

We hold monthly Board meetings at the Western Suffolk BOCES on Deer Park Road the first Thursday of the month from 7 – 8:30pm. We plan events and activities and need your help. If you have time to help with running an event, suggesting an event or even sitting at the registration table,

“STANYS will keep you informed of developments as they occur through our newsletters, websites, and email.”

please let us know. Without volunteers, our events, Newsletter and field trips do not happen. We are in need of volunteers to serve as Physics and Intermediate SAR. Please check our Calendar at SuffolkStanys.org and consider helping all the science teachers of Suffolk.

As you may be aware State Education Department has implemented cost cutting strategies, such as discontinuing the 5th and 8th grade Social Studies exams among other items. STANYS, your professional association, will keep you informed of developments as they occur through our state and local newsletters, websites, and email.

My best wishes for an enjoyable and exciting year of Science in your classrooms. ■



Website & Facebook

Melissa Montauk

Suffok STANYS has an updated website at:

www.SuffolkSTANYS.org

The site is there as a tool for everyone to use. It will be continuously updated so please come back to the site frequently to see what our new poll is, find out about upcoming events, print forms, see photo's of past trips, and find great websites to use in the classroom.

Science Teachers Association of New York State (STANYS) has made a page on Facebook, so all you facebookers come and join our over 160 fans. This is a great way to talk about possible trip ideas, talk with teachers around the state, find out about great video's, articles, and websites.

Don't forget to utilize our state website as a resource:

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

2009 -10 Outstanding Senior Science Awards & Awards Dinner

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 31 students were invited to the dinner which was held on May 20th. It's always the highlight of our year to hear the outstanding achievements of these talented young people. 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 careers.

High School	Student Awardee	Teacher Presenter
Bay Shore	Deborah Boktar	Christopher Loewen
Bayport-Bluepoint	Nischay Shah	Donna Edgar
Brentwood - Ross Center	Mahmoud Abd El Hafez	Jessica Viafore
Brentwood - Sonderling Center	Mario Albuja	Rebecca Grella
Commack	Alexis Tchaconas	Dr. Lorraine Solomon
Deer Park	Adam Grunseich	Theodore Smirlis
Half Hollow Hills East	Rohit Ramani	Glen Cochrane
Harborfields	Elliot Feld	Chris Zenyuh
Hauppauge	Denitza Ivanov	Tara Terzella
Longwood	Mary Rosillo	Barbara Kulik
Mattituck	Ashley Finger	Anna McCarroll
Mount Sinai	Anjali Kapur	Glynis Nau-Ritter
North Babylon	Peter Ruess	Michael Scottalone
Earl L. Vandermeulen HS	Nataliya Gorbachuk	Laurie McMillen
Riverhead	Katherine Skinner	Kimberly Skinner
Sachem East	Beverly Agtuca	Dr. Michael Vaccariello
Sayville	Amanda Rizzo	Lou Gittler
Southampton	Alisha Kraus	Allen Seltzer
Westhampton Beach	Ferdyan Budhidharma	Suzanne Hulme
West Islip	Alexandra Camesas	Robert Purdy
William Floyd	James Penna	Mary Nappi

The adjacent table lists the Outstanding Senior Science Students who were unable to attend the Awards Dinner.



High School	Student Awardee
Bridgehampton	Vanessa Rojano
Connetquot	Brian McIlvain
Copiague - Walter G. O'Connell HS	Marta Sulima
East Islip	Deanna Pandolfo
Elwood - John H. Glenn	Rachel Gilbert
Half Hollow Hills West	Jason Rudin
Huntington	Everett Coraor
Patchogue-Medford	Jonathon Greene
Shelter Island	Gina Giambruno
Walt Whitman	Laura Sharpe

SCSTA Teacher Awards Program

At the Annual Awards Dinner, SCSTA also recognizes teachers for their dedication and service as science educators. Awards in 2010 were given for Middle Level Teacher of the Year and High School Teacher of the Year. Additionally, the Suffolk Section recognized members who have dedicated time and efforts towards the success of our organization with service awards. Each of these individuals has been highlighted on pages 6 & 7.

Save the Date! April 2, 2011

SCSTA Spring Conference

Glen Cochrane

The Suffolk County Science Teachers (SCSTA) Spring Conference will be held on Saturday, April 2, 2011 at the Wang Center, Stony Brook University. Dr. Stephen Dewey will be our keynote speaker who will present "*The Effects of Drugs of Abuse on the Human Brain*." The program will include a Share-A-thon and two sessions of a wide variety of workshops. Registration will be online. Look for upcoming details on the SCSTA website and on the online teacher discussion groups.

Registration will be done 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



2010 High School Teacher of the Year

Glen Cochrane



Glen Cochrane

Glen Cochrane teaches AP Biology at Half Hollow Hills HS East. Mr. Cochrane earned a B.S. in Biology and Environmental Science and his MALS from Stony Brook University and has earned an additional 90 credits beyond his M.A. With certification in Biology, Chemistry, Physics, General Science and even Math, he has taught a wide variety of courses including Honors and Regents Living Environment, Honors and Regents Physics, Marine Science, Environmental Science,

Genetics, and Biotechnology. This array of courses reflects Glen's varied interests in science education. He has forged relationships with the Nature Conservancy and with Stony Brook University. With the Nature Conservancy he developed a Student Stewardship Program and with Stony Brook University's LIGASE (now known as CESaME) he developed programs that incorporated hands-on labs in molecular biology. Since 2001 Glen has worked with high school students at Stony Brook University's Biotech Summer Camp.

Glen has served students in the co-curricula arena as the advisor for Student Government and Senior Class in addition to many other student activities. He is the coach of the school's Science Olympiad team. In fact, several years ago he was dissatisfied with the organization of the C Division Regional competition the year it was at Hills East. His solution was to become the Regional Coordinator, a position he still holds.

Glen has served educators and

science education in several capacities. For more than 20 years he has served as the Science Supervisor's Building Assistant. With Western BOCES Glen worked with low achieving districts to improve staff knowledge of content and pedagogy. He has worked for NYSED in exam construction for the LE regents exam. Glen has served the Suffolk STANYS section as our Biology SAR and has been a regular contributor to our newsletter, a workshop presenter, and participant in wide variety of other activities. In recognition of his contributions to Suffolk STANYS, he received our Service Award in 2009.

In his letter of support, Glen's principal writes that Glen "is creative, enthusiastic and engaging when it comes to teaching students . . . and is very passionate about the subject and his profession." All letters received in support of Glen's nomination had a common theme; Glen has had a positive impact on his students and that his students are inspired by his teaching. ■

2010 Elementary Level Teacher of the Year

Allison Kraham

Allison Kraham is the fifth grade team teacher for science at the Harborfields Central School District's Thomas J. Lahey Elementary School. Mrs. Kraham was awarded a B.A. in Communications/Journalism from Shippensburg University of Pennsylvania and earned an M.S. in Elementary Education from Dowling College. She teaches science to all students using hands-on instruction to promote skill development, selecting content and methods appropriate for students. Mrs. Kraham's instructional practices, strategies, and resources in her science curriculum have included: picture books to introduce science topics; an interactive science bulletin board that is a culminating activity for studying the Solar System; Journey North which is a global study of wildlife mitigation and seasonal climate change; the Space Mission Project; the Cloud

Project; Baby Beluga Whale Day; and an Endangered Species Booklet. Additionally she co-wrote with the technology teacher a successful grant, "Technology Incentives for Innovation."

In her letter supporting Mrs. Kraham's nomination, a colleague wrote that her "...contributions to science education lie in her talent to create a supportive and interesting learning environment that motivates and encourages students to want to learn science." Principal Florence M. Tuzzi commented that, "...Mrs. Kraham is an exceptional teacher who consistently demonstrates her passion for teaching science" and that "...she is a model teacher that helps students perform to capacity and beyond." ■



Allison Kraham with Suffolk Section Chairperson James Ripka

2010 STANYS Service Awards

STANYS Suffolk Section Service Award

Sheilah Schumann



James Ripka with Sheilah Schumann

Sheilah teaches elementary science in Northport. She serves as our public relations officer and maintains our section's archives. She served as secretary and currently is our Elementary SAR and Vice President for membership.

SCSTA Service Award

Melissa Montauk



James Ripka and Melissa Montauk

Melissa is an earth science teacher at MacArthur High School in Levittown. She is a fairly new member of STANYS, having won the new teacher award in 2008. She is our webmaster, coordinates our MATEX fair and is currently our Earth Science SAR.

Members at our 2010 Annual Conference



Members of the NY Paleontological Society set up a display of fossils during the table top session. Chris Marotta (far right) led our Fossil Field trip in May.



Program Chair Maria Brown and Lenny Rosa raffle door prizes.

SCSTA Members Visit The Chemical Heritage Foundation

James Ripka

The first Friday of the month is celebrated in Philadelphia with museums and shops open late for special exhibitions. A number of STANYS members took advantage and visited the Chemical Heritage Foundation (CHF) which is located in the heart of Old Philadelphia, about two blocks from the Liberty Bell.

The CHF fosters an understanding of chemistry's impact on society. CHF is an independent, nonprofit organization, which maintains major collections of instruments, fine art, photographs, papers, and books. The CHF hosts conferences and lectures, supports research, offers fellowships, and produces educational materials relating to Chemistry. Their museum and public programs explore subjects ranging from alchemy to nanotechnology.

We toured the permanent exhibit *Making Modernity*. The exhibit included scientific instruments and apparatus, rare books, fine art, and the personal papers of prominent scientists. Topics ranged from al-

chemy, synthetics, and the chemical-instrument revolution to chemistry education, electrochemistry, chemistry sets, and the science of color. Of particular interest to me was the large variety of scientific equipment that I had used in my research career spanning the biochemistry of cancer and muscles.

On site demonstrations included homemade bouncy balls and fireworks, early 20th Century chemistry sets and cyanotype sun prints.

The early home chemistry sets were very interesting. These had cover graphics of a boy and his dad mixing chemicals and the surprise and wonder of chemical experiments. I noticed a girl's kit version with a daughter and mother doing science on the front cover. It was curious how a girl's Chemistry set differed from a boy's. The curator, wearing gloves opened the two kits and they were quite different. Boys had an "Experiment Lab" with chemicals, test tubes, etc. Girls had a microscope and slides, no chemicals to mix. Looking at the front cover closer, I noticed the girl's kit was a "Lab Technician Set for Girls" kit, something suitable for

girls produced in the late 1950's. It is amazing how far we have come with equity in our science classrooms.

While in Philadelphia, we met Benjamin Franklin, who discussed electricity. We toured the US Mint and picked up some new national park quarters, which had not yet been distributed. Ours had Yellowstone National Park on the back. We visited the Betsy Ross house and sampled the chemistry of wine

"The CHF fosters an understanding of chemistry's impact on society. Their museum and public programs explore subjects ranging from alchemy to nanotechnology."

and cheese at local art galleries before returning to Long Island.

If you have the opportunity, I recommend a visit to this wonderful resource and city. You won't be disappointed! ■



Ben Franklin discusses his experiments with electricity with Ed McDaniels and Lenny Rosa



CHF scientist conducts a chemistry demonstration

Professional Development Opportunities

AMS DATASTREME: How Could You Pass This Up?

Linda Bastians



If you haven't heard of the AMS DataStreme courses for K-12 teachers, then you must read on. The American Meteorological Society has a pre-college teacher enhancement and leadership training program offered in a distance learning format. There are currently two thirteen-week courses offered for free in the fall and spring semesters – DataStreme Atmosphere and DataStreme Ocean. Both courses use a textbook and an investigations manual as well as a web site that contains two weekly activities and a wealth of current data and information that can be used in the classroom.

Participants will receive a textbook, an investigations manual,

and other resource materials at no cost to the participant! Teachers who successfully complete a course will earn three graduate credits through SUNY Brockport at no cost! So how could you pass up this opportunity? Read on to find out how to apply for one of these courses.

Applicants must be teaching professionals at the pre-college level. Although these are inquiry-based science courses, they're not just for science teachers or high school teachers. The program seeks teachers who are willing to accept a leadership role as a weather or ocean education resource teacher in their school district and community. Participants will develop a plan of action that will be implemented upon completion of the course. This plan will

“Teachers who successfully complete a course will earn three graduate credits through SUNY Brockport at no cost! ”

help them introduce colleagues, administrators, parents and members of their community to the benefits of using real-time environmental data as vehicles for learning across the curriculum.

To learn more about the AMS DataStreme program and to download an application for one of the courses, go to <http://www.ametsoc.org/amsedu/> or email your questions to Lisa.Bastiaans@ncc.edu. ■

Museum of Natural History Seminars on Science

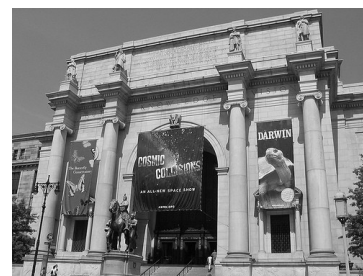
Katie Rasmussen

For those of you looking for credits, registration is open for the 2nd session of **Seminars on Science** from the American Museum of Natural History. The courses are ONLINE and can be taken for up to 4 graduate credits each. Courses run Oct 25—Dec 5. Courses will also be run in the Spring and Summer (whichever works best for you). You can sign up now at learn.amnh.org.

Courses include: *Evolution; Earth: Inside and Out; The Ocean System; The Solar System, Genet-*

ics, Genomics, Genethics; The Link Between Dinosaurs and Birds, Space, Time and Motion, and more. 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 2 closes October 12, 2010.. Early registration discount ends September 27, so sign up now! ■



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

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

Suffolk County Community College Earth & Space Sciences Autumn Lecture Series



Throughout the autumn of 2010 the Earth & Space Sciences faculty of SCCC will be holding a series of public lectures at the Ammerman Campus.

Friday, September 24th **"The Little Ice Age"**

Western Europe experienced a general cooling of its climate between the years 1150 and 1460, and an even colder climate between 1560 and 1850, that brought dire consequences to its peoples. In this dynamic talk, Scott Mandia, Professor of Meteorology, will show how The Little Ice Age impacted agriculture, health, economics, social strife, emigration, and even art and literature.

Friday, October 22nd **"Cosmic Catastrophes, or why the Universe is trying to destroy us!"**

Wherever we look in space, whether it is nearby in the Solar System, or to the furthest edges of the Universe, events occur that have the potential to destroy all life on Earth. In this lively talk, Dr. Mike Inglis, Professor of Astrophysics, will explain these events, and what we can do, if anything, to protect ourselves from them.

Friday, November 19th **"Fire & Ice: Mass Extinctions and the Future of Life"**

Major meteorite impacts, massive volcanic eruptions, and the advance of great ice sheets have all produced the planet we are familiar with, but they also significantly altered and influenced life. In this talk,

Sean Tvelia, Professor of Geology, will discuss not only the geologic evidence for major catastrophes and their subsequent impacts on life, but also what these events can tell us about the future prospects for life on Earth.

Following each talk will be opportunities to look through telescopes, weather permitting!

Teachers who attend will obtain a certificate of attendance for in-service teaching credits.

LOCATION: Ammerman Campus, Smithtown Science Building, room T109, SELDEN

START TIME: 7:30 p.m. lasting approximately 45 minutes with time at the end for questions.

CONTACT Mike Inglis:
inglism@sunysuffolk.edu

The Institute for the Development of Education in the Advanced Sciences (IDEAS) of Hofstra University has opportunities for you!

Jacqueline Grennon Brooks

Looking for interesting and productive ways to earn hours toward professional development credit? Do you need coursework toward an extension to initial science teaching certification? The Institute for the Development of Education in the Advanced Sciences (IDEAS) of Hofstra University has opportunities for you!

- Promoting dialogue among scientists, science educators, and the general public.
- Providing coursework toward extensions to initial science teaching certifications.

Science Teacher Professional Development

The IDEAS Institute is dedicated to increasing public understanding of science and, since January 2003, it has been achieving this goal in a number of ways:

- Offering "outside the box" professional development for in-service science teachers.

On Nov. 2, 2010, IDEAS will sponsor its third annual Election Day workshop for science teachers from 8:30 a.m. – 2:30 p.m. This year, we will hold the event at the New York Hall of Science! The focus of the day will be Assessment in the Science Classroom: Probing Student Understanding. The day will open and close with a whole group pres-

entation and the middle of the day will feature breakout workshop sessions based on level and content, and tied to the day's theme of assessment. Each session will feature one or more of the museum's specialty exhibits, such as the Biochemistry Discovery Lab, the outdoor science grounds (weather permitting), and the mini-golf exhibit on physics rocket launching, among many others. As an amazing bonus for attendees, the New York Hall of Science will grant every teacher attendee a one year teacher membership. Benefits of this membership include one year of free admission for the teacher as well as free parking, and use of the library which has extensive

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materials available for loan. Add on lunch and door prizes, and the \$60 per teacher fee is a true bargain!

IDEAS has always provided monthly lectures on science and sponsored professional development workshops for science teachers during the school year. This past year, IDEAS linked the two activities by holding a professional development workshop for science teachers from 3:30 – 7:30 p.m., then concluding the workshop with an IDEAS evening event from 7:30 – 9:30 p.m. In the coming year two such workshops are planned.

On March 10, 2011, please join us for Multidisciplinary Problem Solving: Leveraging Knowledge to Enhance Learning, a math, science, art and music teacher professional development event from 3:30 p.m. – 9:30 p.m. This six hour workshop concludes with an evening presentation of a performance of "Galileo's Muse: A Tale of Music, Physics, Creativity and Insight."

On April 14, 2011, we welcome you to Students as Scientists: How and Why doing "Real Science" Can Improve Test Scores, a professional development workshop for K-12 teachers from 3:30 – 9:30 p.m. This six hour workshop concludes with an evening conversation via Skype with Dr. Lawrence Lowery, renowned champion of research based science curriculum.

Science Evenings with IDEAS

IDEAS offers free monthly dialogues on selected Thursday nights to which you, your family and your **students** are welcome. Teachers receive a certificate for one hour toward PD credit, and your students can also receive attendance certificates.

The IDEAS Thursday evening lectures on science topics have built a loyal and growing audience over the years. Traditionally, all the talks have been lectures followed by questions and answers. This year, the new IDEAS director, Dr.

Jacqueline Grennon-Brooks, has actively pursued a shift in the format to one of dialogue between the guest speaker and the audience. In the beginning of the year, she was the main questioner – but as the year progressed, the audience clearly joined in the dialogue and began to ask questions during the presentation, often sparking others to join in the discussion. At the end of the year, attendees were complimentary about the format revision, reacting positively to the opportunity to be a part of the evening presentation. Please come and be part of the dialogue on such topics as *Evolution*, *Sustainable Life*, and the *Science of Baseball!*



(Continued on page 15)

NASA TEAM UNVEILS VIRTUAL STUDENT ENGINEERING COMPETITION



NASA is going virtual in its latest attempt to excite high school students about engineering and real-life design challenges facing future space explorers. NASA's Langley Research Center in Hampton, VA, and Goddard Space Flight Center in Greenbelt, MD, are collaborating with the National Institute of Aerospace (NIA), USA TODAY Education, and LearnIT-TeachIT for the upcoming "RealWorld-InWorld Engineering Design Challenge." The competition offers high school students a unique opportunity to work with university students and engineering mentors in a 3-dimensional virtual world to solve authentic NASA-inspired, design-based engineering problems using 21st century technology tools and skills.

NIA's team developed the competition in two phases. During the "RealWorld" phase, high school students

use the engineering design process to develop possible solutions to one of two problems related to the Webb telescope. Once the RealWorld component is completed, teams may move into the "InWorld" challenge. In a multi-user virtual world, developed by NIA, the team will expand to include engineering and information technology university students and an engineering expert. Working collaboratively, RealWorld groups will transform ideas into three-dimensional models and simulations. The top five teams will present their ideas to evaluators, including Webb researchers, during a special education forum.

In order to be considered for the InWorld phase of the challenge, high school students and their coaches are asked to submit their final RealWorld project solutions by **December 15, 2010**. Teams can register for the challenge online. Registration is free of charge. More details are at: www.nasarealworldinworld.org ■

Programs for Students

Long Island Science Congress

The Long Island Science Congress (LISC) is an adjudicated exhibit of science projects by students of Nassau County and Suffolk County middle, junior high and senior high schools, sponsored by the Long Island Sections of the Science Teachers Association of New York State (STANYS). Each year, hundreds

of students from nearly 100 schools participate in this science competition. There are two divisions: Junior Division for students in grades 7-8 (including 9th graders taking their first regents science course), and Senior Division for high school students in grades 9-12. Students are allowed to work

in groups. The Congress is traditionally held on two week days in April, with an Awards Ceremony in May. Each school may enter up to 10 projects. A teacher liaison may start filing on December 1, 2010. Final deadline for registration is January 31, 2011. For more information go to the LISC website at: <http://www.liscicong.org/>



Center for Science and Mathematics Education (CESAME) at Stony Brook University

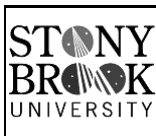
Science Field Trips to Stony Brook University

You and your students are invited to participate in a wide variety of activities that are offered at the Center for Science and Mathematics Education (CESAME) at Stony Brook University. With programs that vary from graduate classes to in-service, professional development courses, to school field trips, and much more, there are many opportunities to interest teachers and their students. A look at the CESAME web site (www.stonybrook.edu/cesame) will lead you to information about field trips appropriate for middle school students, as well as for students who are studying earth science, living environment, chemistry, and physics. There are different opportunities for Regents and AP level classes. There are a few new Earth Science labs this year, so check our web site for more details.

The Center for Science and Mathematics Education (CESAME) at Stony Brook University offers hands-on science field trip experiences for secondary school classes.

- The Biotechnology Teaching Laboratory offers four different lab activities that can be tailored to meet the needs of Regents level Living Environment and AP Biology classes.
- The Chemistry Teaching Laboratory offers two different experiments appropriate for Regents and AP level chemistry classes.
- The Physics Teaching Laboratory offers experiments to appropriate for all levels of physics, as well as AP Chemistry classes.
- The Geosciences (Earth Science) Teaching Laboratory is in the process of developing several activities to meet the needs of Regents level Earth Science classes.
- A Forensics Laboratory is also available for middle school students.
- Engineering Summer Camp (residential – two weeks)

For additional information, visit the CESAME web site, www.stonybrook.edu/cesame. To reserve a spot for your classes, or if you have questions about the programs call the CESAME office, 631 632 9750, or send email to: cesame@stonybrook.edu. ■



Subject Area Representative (SAR) Reports

Biology

First Step for Change in Science Education

Glen Cochrane, Biology SAR

Changes are coming in the Standards for K-12+ science education. The National Research Council (NRC) released "A Framework for Science Education: Preliminary Public Draft" this summer and College Board released a "Draft: Revised AP Biology Curriculum" in 2009. Both of these drafts will lead to changes in how and what is taught in biology and life sciences nationally.

"A Framework for Science Education: Preliminary Public Draft" was released by the National Research Council this summer for public comment. Maybe because the comment dates were July 12- August 2, it seemed to go unnoticed by most science teachers. The final version of this document is very significant. It has the potential to have a very big impact on what and how science is taught throughout the country. It will serve to guide the development of next generation standards for science education. This framework is the first step in a process for revising existing standards in K-12 science education. There is an emphasis for states to adopt common standards so this report will be that framework to construct state curricula. In 1996, the NRC published "National Science

Education Standards" and it served as the framework for the NYS standards and core curriculum guides. The NYS Regents assessments are based on those core curricula. Our courses are designed with the core curricula in mind. This revision will serve as the guide for the design of future science curricula.

The conceptual framework in this report presents the committee's vision of the scope and nature of the education in science and engineering that is needed in the 21st century. Thus, it describes the major scientific ideas and practices that all students should be familiar with by the end of high school. Engineering and technology are featured alongside the natural sciences in recognition of the importance of understanding the designed world and of the need to better integrate the teaching and learning of science, technology, engineering, and mathematics. ("A Framework for Science Education: Preliminary Public Draft, 2010)

The new Framework is a revision that has taken research on learning and science education into account. It encourages active learning, inquiry, and modeling. For each scientific idea, students are given methods

"The new Framework is a revision that has taken research on learning and science education into account. It encourages active learning, inquiry, and modeling."

for scientific practice, performance indicators, and criteria for evaluation. There are core ideas in the Life Sciences, Earth Sciences and Physical Sciences with questions that frame major themes. It also infuses engineering principles and technology. Following is an example from the Framework of a major theme from the Life Science standard:

LS 1: Organisms have structures and functions that facilitate their life processes, growth, and reproduction. (From Molecules to Organisms – Structures and Processes)

How do living things do what they need to so they can live, grow, and reproduce?

(Continued on page 14)

Teach for the Environment: Theodore Roosevelt Sanctuary



You can help children and adults connect to nature, have a wonderful time teaching, and learn from and work with naturalists, all at the same time. This is the experience for an Education Volunteer at the Theodore Roosevelt Sanctuary and Audubon Cen-

ter in Oyster Bay Cove. The Sanctuary is considered to be the oldest songbird sanctuary in the nation. It has 15 acres of upland forest and open meadow habitat maintained for songbird conservation and environmental education. Programs are also brought to classrooms and other community sites.

For more information about the TR Sanctuary or becoming a volunteer, contact:

Chrissy Albanese, Education Director (516)922-3200,
calbanese@audubon.org

or
Marilyn Hametz, Education Volunteer (516) 799-7189 ■

“The Framework is not vastly different from what we currently do in NY. It should enable states and districts to develop curricula that take into account what has been learned about how students learn science.”

(Continued from page 13) Biology SAR Report

LS1.A. *How do the structures of organisms help them to perform life’s functions?*

(Structure and Function)

LS1.B. *How do the structure and functioning of organisms change as they grow and develop?*

(Growth and Development of Organisms)

LS1.C. *How do organisms get and use the matter and energy they need to live and grow?*

(Organization for Matter and Energy Flow in Organisms)

The Framework utilizes learning progressions which is a spiral plan where the same core ideas are taught through the grade levels with increasing content and complexity. It is not vastly different from what we currently do in NY. It should enable states and districts to develop curriculums that take what has been learned about how students learn science and age

appropriate understandings into account. It is certainly time for us to review the NYS LE core Curriculum and this new framework should get us started.

For teachers of AP Biology, an exam based on a new curriculum could be in place as early as 2013. Within a year, we may have to think about changes to our courses. Hopefully professional development will be available to help with those changes.

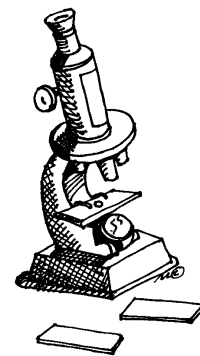
In 2002, the National Research Council (NRC), with support from the National Science Foundation (NSF) and the U.S. Department of Education, published the results of a two-year study of the Advanced Placement (AP) and International Baccalaureate (IB) programs. The report, Learning and Understanding: Improving Advanced Study of Mathematics and Science in U.S. High Schools (NRC 2002), suggests that the primary goal of advanced study programs —should be to help students achieve deep conceptual understanding of the content and unifying concepts of a discipline. (“Draft: Revised AP Biology Curriculum” (College Board, 2010)

The new course claims to be a change for greater conceptual understanding, quantitative thinking, investigative skills, and modern thinking in science. Lab activities will emphasize various levels of inquiry. There is actually a fairly detailed outline of content with exclusion statement indicating what is outside the scope of the course

and will not be tested. This will help AP teachers focus on material and concepts students are expected to know rather than guess at the level of detail.

For those of you that have been teaching AP Biology; don’t panic. The thematic approach, teaching for understanding of major concepts, reducing the memorization of details, inquiry activities (rather than the “dirty dozen”), attempting to lecture less and more student centered learning has been the goal of many of us for quite a while. I hope this new curriculum gives us enough guidance to achieve those goals. ■

“The thematic approach, teaching for understanding of major concepts, reducing the memorization of details, conducting inquiry activities ..., has been the goal of many of us for quite a while.”



Refer to the websites below for further information:

The NRC, “A Framework for Science Education: Preliminary Public Draft”

http://www7.nationalacademies.org/bose/standards_framework_public_draft_cover_letter.html

The College Board, “Draft: Revised AP Biology Curriculum”

http://apcentral.collegeboard.com/apc/public/repository/draft_revised_ap_biology_curriculum.pdf

Chemistry

What's New in Illegal Drugs?

James Ripka, PhD., Chemistry SAR

What illegal drugs are being used and abused in our local area? Ms. Babita Joseph, Forensic Chemist for the Drug Enforcement Administration gave an eye opening presentation to the Long Island Forensic Educators last Spring. The program was held at SUNY Stony Brook and hosted by the Center for Science and Mathematics Excellence (CESaME).

Among the topics discussed and backed up by photography were novel illegal drug smuggling operations using humans and imported pets such as puppies. Drugs are often disguised as parts of manufactured clothing ornamentation as well. Clandestine drug

laboratories and the dangers of investigating them including the volatile chemicals associated with drug manufacturing were seen in graphic images of remnants of illegal lab operations that had blown up.

Of particular concern in current illegal drugs were two areas. First, drugs are being marketed as teenage friendly. Pills are stamped with peace signs, and other feel-good images. Some pills are formed as cartoon characters, such as Bart Simpson, and other pills have psychedelic colors added to enhance their friendly appeal.

A second area is the realization that drugs are no longer being

used and abused in their purest forms. Rather a trend appears to be a blending or mixing of drugs to create altered effects. Hence, no one really knows what they are ingesting when they take an illegal drug; it could be a mixture of many different substances.

I hope Ms. Joseph will return and give her presentation at our Annual Meeting and at MATEX. Every teacher and parent should see what is going on. Thank you, Ms. Joseph and CESAME. ■



News from College SAR

Linda Padwa, College SAR

STANYS invites college students (undergraduates and graduates) who are enrolled in **Science Teacher Preparation Programs** to join our organization. Using the Membership form that can be found in this newsletter, teacher candidates can apply for a **one-year free membership** (when the application is accompanied by a letter from a college instructor).

If you know a college student who is preparing to become a science teacher, please encourage them to apply for this free membership so that they can become part of the vibrant community of science teachers within New York State. ■

“Using the Membership form that can be found in this newsletter, teacher candidates can apply for a one-year free membership.”

Doctorate in Science Education at Stony Brook University

Stony Brook University's Doctoral Program in Science Education is starting during the Fall 2010 semester. Applications for the Fall 2011 semester will be accepted until January 15, 2011. See the program website for more information:

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

An informational meeting will be held towards the end of October. Check the web site for details.



(Continued from page 11)

Graduate level science courses for teachers at Hofstra

The IDEAS Institute is located in Hagedorn Hall, a technologically advanced facility on Hofstra's campus, which serves as the home of the School of Education, Health and Human Services (SOEHHS). Hofstra University's SOEHHS enjoys a strong national reputation as a leader in teacher education.

Need details? Have questions? Want registration forms? Call Eloise Gmur at 516-463-5792 or visit the website: ■

Hofstra.edu/IDEAS



Earth Science

Melissa Montauk, Earth Science SAR

My name is Melissa Montauk and I was appointed the Earth Science SAR (Subject Area Representative) for Suffolk County, as well as the webmaster, and MATEX coordinator. I currently teach 9th grade Earth Science at MacArthur H.S. in Levittown. I was the recipient of the STANYS Fellows New Teacher Award in 2008 and have since then become very active with the group.

I have recently started monthly "Long Island Earth Science" Meetings. Information about September's meeting will be up on the website as well as on facebook. If you would like to be added to my e-mail list of Earth Science Teachers please fill out the "Contact Us" form on the website (www.suffolkSTANYS.org).

I would also love any suggestions on meeting ideas and field trips. If you have information to share and would be willing to run a meeting let me know. The meetings are a great time to meet new people & share new information at the same time.

I am here to help you in any way possible. If you need help with a current topic or have any trip ideas that you would like me to plan just send me an e-mail. My e-mail address is:

mmontauk@levittownschools.com.

Some Earth Science related activities this Fall include:

October 10-16 is **National Earth Science Week!** This year's theme is "Exploring Energy," it will engage young people and the public in learning about Earth's energy resources. Make sure to get on-line and check out different lesson ideas and order your 2010 Earth Science Toolkit!

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

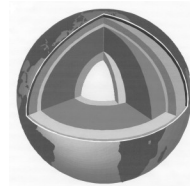
October 12 is **NCLI (No Child Left Inside) Day**. During "No Child Left Inside Day", students, teachers and environmental educators should try to set aside time to go outside and take part in spe-

cial activities that will increase kids' understanding and appreciation of their natural world. <http://www.cbf.org/Page.aspx?pid=687>

October 13 is **National Fossil Day**. National Fossil Day is a celebration organized to promote public awareness and stewardship of fossils, as well as to foster a greater appreciation of their scientific and educational value.

<http://www.nature.nps.gov/geology/nationalfossilday>

November 17 is **GIS (Geographic Information Systems) Day**. GIS Day provides an international forum for users of GIS technology to demonstrate real-world applications that are making a difference in our society. ■



Inspiration for the Elementary Science Teacher

Sheilah Schumann, Elementary Science SAR

Welcome back elementary teachers, with all best wishes for a most amazing year! Of course the best way to encourage a remarkable year is through the integration of science in your curriculum. Fortunately for us, science and young children go together naturally. Nearly all children have inherent enthusiasm for the subject, while science, by nature, surrounds us in such a way, that with skillful creativity, you can incorporate it into just about any lesson. All that's needed is your earnest desire and a little inspiration.

One primary resource for inspi-

ration I'd like to share is our organization, the Suffolk County Science Teachers Association. As the local arm of the New York State Science Teachers Association, the SCSTA is all about Suffolk and science! Membership connects you to a multitude of science teachers across the county and the state, and by merely signing on, you are doing your part to promote the teaching of exemplary science -- a very worthy cause indeed. Membership literally pays for itself through exposure to professional development opportunities, reduced pricing on a variety of activities, and affable networking

with people who share your same passions and interests.

A second invaluable resource I recommend is elementary science listservs. Listservs bestow yet another way to connect with elementary science teachers across the state and offer a forum for asking questions about content and curriculum, sharing ideas and lesson plans, and learning about opportunities. The **NES-TLING Listserv**, which stands for **N**urturing **E**lementary **S**cience **T**eaching, supplies professional support for teachers of K-4 sci-

(Continued on page 18)

Environmental Science

Sonja Anderson, Environmental Science SAR

Welcome Back! I hope you enjoyed the quick summer months as much as I did, although we did have some hot days mixed in there. Now our focus returns to the classroom and I am going to encourage you to get your students outside as much as possible. I have determined through AP grades and overall understanding of the content, that the students who really get it are the ones who are involved. This year I will challenge my students to find something in the community they can get involved with and carry through the entire year. When I set up my grading, I count about 20% of the student's grade as community service. Each student is required to complete 5 hours of community service outside of other clubs or organizations each quarter. I am encouraged by the feedback from students

who are involved more than others and they have a much better sense of why community organizations are so important. The students are also so proud of themselves for making a difference it's a great accomplishment for many of them.

If you teach an AP level course, be aware that the exam date has been moved up by about 10 days. AP Environmental Science will be given during the first day of exams. I know this will add increased pressure for both teachers and students to complete the course work, but maybe the method of delivering the content can be done in a more effective manner? Outside? Environmental Science offers teachers a great advantage...students love to go outside of the classroom and are often more attentive and excited when given the opportunity.

"If you teach an AP level course, be aware that the exam date has been moved up by about 10 days."

I look forward to each September because I try to get 30+ students excited about their environment and show them things that they have seen since they were in elementary school, but never understood what they were really looking at. This school year, I challenge you to deliver the same course in fewer days and add in as much outside time as possible this fall!

Watch for professional development opportunities through STANYS for environmental science. "You must be the change you wish to see in this world" - Mahatma Gandhi ■

Forensic Science — A Collaboration of Disciplines

Jeannie Guglielmo, Suffolk Section Forensic Science SAR



Science is a very collaborative subject. Researchers work together to develop new experiments and test theories. Forensic Scientists collaborate from many different specialties to solve cases. For example, a single piece of paper, a ransom note, may be analyzed by a fingerprint specialist, a DNA analyst, a document examiner, and a trace evidence analyst.

To portray this collaborative approach, an educator can expose students to real life cases that involve multiple disciplines. Next, students can be challenged to pretend that they are different specialists and have them work together to solve a mock case. The students can share information about their own work, and discuss how it builds upon, or compliments other disciplines. The assignment could culminate with a discussion of how the different disciplines could come together in a single court case to try the mock case.

The following are meetings for this upcoming year that can enhance your knowledge of Forensic Science:

2010 NEAFS (Northeastern Association of Forensic Scientists) & NEDIAI (New England Division of the International Association

for Identification) Joint Meeting – November 8-12, 2010 at the Equinox Golf Resort and Spa in Manchester, VT. For more information, contact Peter Diaczuk (212) 484-1176, or NEAFS2010@gmail.com.

The Educator's Forum is on Tuesday, November 9th. <http://www.neafs.org/faqs.htm>

AAFS (American Academy for Forensic Science) Annual Meeting, February 21-26, 2011 at the Hyatt Regency Chicago, Chicago, IL. For more information, visit website <http://www.aafs.org>

LIFE (Long Island Forensic Educators) the 2010 meeting that was held in May 2010 featured a Forensic Chemist from the DEA. Look for more details for the 2011 meeting in the Spring of 2011.

STANYS Spring Conference, April 2, 2011 at SUNY Stony Brook Wang Center. (See related article on page 5). We will be sure to include forensic workshops. ■

Retiree Corner

Ed McDaniels, Retiree SAR

This past winter was tough in both New York as well as Florida. Florida experienced the second coldest winter they have ever had and New York got pounded with snow and terrible wind storms. This is my second winter in Florida and I wanted to share some experiences with both young and old.

The first is about exercise and staying young. My condo community has an exercise group that meets every Monday, Wednesday and Friday mornings as well as a walking group that meets Tuesday and Thursday mornings. I thought I'd join the exercise group to work off some of the pounds that have slowly trickled onto my frame in recent years. Easily, I was 10 to 15 years younger than most of the people who showed up every day and as I came to my first meeting I felt pretty cocky about my fitness level as compared to the 80-year olds that surrounded me. That soon ended as we began to work out. There were some people who infirmities had slowed down and restricted their movements but there

“I cannot urge you enough that regardless of your fitness level, exercise as much as you can. It is a vital investment in your long term health and enjoyment of life.”

were also vital and healthy members of the group. One of my neighbors, a lady I later found out to be 82, invited me to put my exercise mat next to hers so I'd feel welcome. As we did the flexibility and warm-up routines she kicked my butt in the range of motion and strength she displayed as compared to this humbled “young” man. She was only one of many older people who, in part, due to exercise, sensible eating, good genes and luck were vital, healthy and fun people to be with. The gentleman who led the exercise group had been doing this task for more than 20 years and was still going strong. During my stay we celebrated his 90th birthday. By the end of the 45 minute class I had worked up a good sweat and an increased admiration for my neighbors. People who could not easily get up and down from the exercise mats just sat on chairs and did as much as they could. Just do the best you can and don't make excuses. I cannot urge you enough that regardless of your fitness level, exercise as much as you can. It is a vital investment in your long term health and enjoyment of life.

The other experience I wanted to share was a sightseeing trip on a Segway. A Segway is a motorized personal vehicle having two wheels on one axle

that balances itself using gyroscopes and tilt sensors. It was very easy to learn, training takes the first 15 minutes of the tour, and fun to use. To go forward, just lean forward and the gyroscopes sense the direction and weight shift and move you accordingly. The more you lean, the faster you go, up to 12.5 mph. Backing up is just as easy, and turning is just a twist of the handle bars. A friend and I went on a tour of Fort Myers and zipped around town past admiring and curious glances. We went on sidewalks, bike paths and even roadways. There is a steep bridge that connects the beach area with the mainland and we were able to easily navigate around both pedestrians and huffing and puffing cyclists with no difficulties. If we picked up too much speed on the way down the bridge just a simple lean back slowed us down to a comfortable speed. Segway tours are offered in many cities across the country and the world. I'm planning a trip to Chicago and a 3 hour excursion costs \$70 dollars and takes you to many of the popular tourist places around town. Next time you are headed somewhere new, check and see if you can add “Segwaying” to your completed bucket list. ■

(Continued from page 16) *Elementary Science*

ence with mentoring from veteran science teachers. The *5-8 Science Listserv* provides a platform for professional discussion and support of middle level science teachers engaged in teaching New York's Intermediate (5-8) Science Core Curriculum. Best of all, membership in either of these listservs is free! Subscribe to either, or both, at:

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

A third significant resource for inspiration is your elementary subject area representative, me! As an

experienced elementary educator with a devout passion for science, I aspire to promote and facilitate exemplary teaching practice in the field. I am more than happy to address questions, concerns, or comments you may have regarding such. I also welcome your ideas as well as any lessons you wish to share. In particular, I'd appreciate feedback on the following question: “What can we, as a union of elementary science teachers, do to improve the teaching of science at the elementary level?” Please contact me for any or all of the above by email at sheilah_s@yahoo.com.

I look forward to hearing from you. ■

Grant Opportunities

Program: Learning and Leadership Grants. Student Achievement Grants

Funder: NEA Foundation

Summary: Learning & Leadership Grants provide opportunities for teachers, education support professionals, and higher education faculty and staff to engage in high-quality professional development and lead their colleagues in professional growth. The grant amount is \$2,000 for individuals and \$5,000 for groups engaged in collegial study. Application deadlines: February 1, June 1, October 15. ... Student Achievement Grants provide \$5,000 to improve the academic achievement of students by engaging in critical thinking and problem solving that deepen knowledge of standards-based subject matter. The work should also improve students' habits of inquiry, self-directed learning, and critical reflection. Application deadlines: February 1, June 1, October 15.

Deadline: Open

URL: <http://www.neafoundation.org/pages/educators/grant-programs/>

Program: Education; Environment; Health

Funder: Lawrence Foundation

Summary: The foundation is focused on making grants to support environmental, education, human services and other causes although our interests are fairly diverse and may lead us into other areas on an occasional basis. We make both program and operating grants and do not have any geographic restrictions on our grants. Nonprofit organizations that qualify for public charity status under section 501(c)(3) of the Internal Revenue Code or public schools and libraries are eligible for contributions or grants. Grant applications are due either April 30 for our June grant cycle or October 31 for our December grant cycle.

Deadline: Open

Contact: (310) 451-1567

URL: <http://www.thelawrencefoundation.org/grants/>

Program: Youth education

Funder: American Honda Foundation

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>

STANYS 115th Annual Conference

November 6-9, 2010

**Rochester Riverside
Convention Center**

Eastern LI Science Olympiad—C Division (High School)

Glen Cochrane, Regional Coordinator

The days before last year's Regional C Division (high school) competition, scheduled for the first Saturday in February, were fraught with anxiety due to the threat of a major snow storm. With 29 schools, 50 teams, over 100 supervisors to run 21 events, the last thing I wanted to do was reschedule. A massive storm that dumped over a foot of snow to our south was aiming for us on February 6th. Of course, if it was going to strike us, I would cancel without thought but the forecasters couldn't predict. A couple of Suffolk schools canceled under the threat of snow and the Nassau tournament was postponed. I waited until the early morning hours and with no snow on the roads, we decided to hold the event. The storm stayed south, 24 schools, 45 teams and over 500 Science Olympians enjoyed a great day of science, technology and problem solving.

The Science Olympiad with its diversity of events offers a fantastic opportunity for science. Biology, Earth Science, Chemistry, Physics are all represented with events like Anatomy, Cell Biology, Fossils, Chemistry and Physics Lab. A new Protein Modeling event was added that relied on Jmole computer visualizing software and student understanding specifics of protein structure. Olympians constructed and studied trajectory devices that could shoot a projectile within centimeters of a pin or into a bucket. Mouse trap vehicles, bridges, water rockets, battling robots, and clocks are a sampling of other constructed devices. Communicating teams wrote instructions to build a model and others attempted to build the model with the instructions. Others played "Picture This" the science terms.

Long Island is a hotbed for science and I'm thrilled to say that each year we are getting more schools participating. Students and teachers are looking for opportuni-

ties to get science "outside the box." Long Island has the greatest number of Science Olympiad teams in the State, and New York State leads the country in number of teams with over 350 high school teams competing in regional tournaments. A record seven teams from Eastern LI (Suffolk) qualified for the New York State Tournament, which was held at West Point on March 19-20, 2010. These include the following high schools: Ward Melville (Three Village), Half Hollow Hills East, Bayport-Bluepoint, Commack, Brentwood, Smithtown West, and Vandermeulen (Port Jefferson). Results from the regional tournament are available at <http://newyorkscioly.org/SOPages/EasternLIC.html>

Fifty four schools competed at the New York State Tournament and the top two teams attended the National Competition at The University of Illinois at Urbana-Champaign on May 20-22. The perennial powerhouse team of Fayetteville-Manlius once again took first place and special congratulations to our Regional Champion, Ward Melville for placing second at states. These teams competed in a field of 60 teams from 46 states and placed 10th and 14th, respectively.

Although the Science Olympiad doesn't attract the front page headlines of the Siemens or Intel, it is real science and offers students a chance to interact with hundreds of likeminded kids and win medals for their success. If you aren't already coaching a team, I encourage you to get involved. You will be surprised how motivated some kids get doing these events. Teams begin organizing in the early fall. When schools register, coaches receive a coach's manual with a description of the events. Students split

"The Science Olympiad with its diversity of events offers a fantastic opportunity for science."

up the events and the preparations begin. Many coaches attend regional coach's clinics to get insight and tips into the events from experienced coaches and event writers. For more information, go the National Science Olympiad web site (<http://www.soinc.org/>) and you'll find links to the state site and lots of useful information.

Congratulations to all Science Olympiad participants for a very successful 2010 season. We know that teams will start preparations this fall for upcoming tournaments in 2011. Register your team early so you get your manual of the new events for this year. The Eastern Long Island Regional Tournament will be at Half Hollow Hills East HS in early February. The State Tournament will be held at West Point on March 18 – 19, 2011. ■

**Annual Coaches
Workshop**

October 22-23

Fishkill, NY

Register now for

New York State

Science Olympiad

<http://newyorkscioly.org>

Eastern LI Science Olympiad—B Division (Middle School)

Keri Lukin Page, Regional Coordinator



Exploring the World of Science

Science Olympiad is a national competition wherein students compete in different events utilizing a variety of problem solving and scientific skills. In 2010, over 2 million students nationwide competed in events ranging from designing an experiment using only the materials provided to forensic crime solving to building a robot to battle opposing teams.

The Eastern Long Island B Division Science Olympiad regional tournament was held on Saturday, March 6 at Candlewood Middle School in Dix Hills. 45 teams from 29 schools competed. The top schools this year were Springs (6th place),

Great Hollow Middle School (5th place), Islip Middle School (4th place), Port Jefferson Middle School (3rd place), R.C. Murphy Junior High School (2nd place), and Paul J. Gelinas Junior High School (1st place). These schools advanced to the state tournament held April 30 and May 1 at SUNY New Paltz where R. C. Murphy came in 3rd and Paul J. Gelinas finished 1st Place. The Gelinas team continued to represent New York at the national tournament and came in 3rd overall.

The 2011 regional tournament will take place on March 5, 2011 at Candlewood Middle School. Events this year will include Microbe Mission,

“The 2011 regional tournament will take place on March 5, 2011 at Candlewood Middle School”

Storm the Castle, Experimental Design, and Science Crime Busters. For a complete list of events and the registration form, see the New York State Science Olympiad webpage at:

<http://newyorkscioly.org> ■



New York State Champions from Paul J. Gelinas JHS (Setauket) placed 3rd at the National Tournament held at the University of Illinois at Champaign-Urbana. Sixty teams from 47 states participated in the competition held last May.

What can membership in STANYS Offer You?

Networking, Friendships, and Collaboration with other professionals in your discipline.

Professional Development Workshops at the state, regional and local level.

STANYS' Annual State Conference at the Rochester Riverside Convention Center, with over 200 workshops and special presentations available at all levels, and in all disciplines, vendors exhibiting the latest in science education materials, opportunities for stargazing, keynote speakers, socializing with peers, and much more.

Updates on what is Happening in Education throughout the State : STANYS provides a vehicle for communication between classroom teachers and the NY SED. One of the best avenues for that communication is the statewide network of Subject Area Representatives (SARs) in each discipline.

State Science Congress and Science Olympiad Information for you and your students, including workshops for Olympiad coaches presented by experienced Olympiad coaches.

Access to the STANYS DALs and SARs. The **Directors at Large** (DALs) coordinate the activities of the **Subject Area Representatives** (SARs), who in turn provide workshops for the members in their Sections.

Section Meetings and Updates. Each Section of STANYS (16 throughout the state) has meetings and activities for their members. These meetings provide science content, teaching techniques, opportunities for local leadership, and state education department updates.

The **STANYS Newsletter** publishes five issues each year, containing curriculum and SED updates, conference information, notice of offers, grants, and other educational opportunities for teachers and students.

E-Blasts. Email messages about important issues and current topics that require the immediate attention of members.

The **Science Teachers Bulletin**, published in the fall and spring of each year, addresses philosophical issues, research in education methodologies, and information about STANYS members.

Opportunities for leadership positions in the organization at the section and state.

**Your membership in STANYS includes
membership in the
Suffolk Section –two for the price of one!**

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 Suffolk science 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 activities available locally, and provide the chance for networking with your colleagues.. Updates from the state, new lab activities, innovative teaching strategies and demonstrations are just part of what's offered!

(Continued on page 23)

(Continued from page 22) Membership

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. Give-aways are always a part of the program!!

Suffolk Section holds an Awards Dinner each May honoring outstanding high school seniors and exemplary elementary, intermediate, and high school teachers in Suffolk County.

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.

**But most importantly,
Suffolk Section STANYS provides us, the science educators of Long Island, the
Opportunity to Make a Difference in Education in Suffolk County!**

Be a part of your professional organization - JOIN US TODAY!

Use the membership form in this Newsletter, or join electronically using the form at the

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

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

Scenes from the 2010 SCSTA Spring Conference



**Keynote Speaker
Donald Dollerd from
the Suffolk County
Crime Lab with
Jeannie Guiglielmo,
Forensic Science
Subject Area Rep**



Join us for our monthly meetings. Most are on the first Thursday of the month.

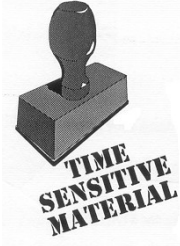
Dates for 2010-11 are :
 Sept 7, Oct 7, Nov 4,
 Dec 2, Feb 3, Mar 3, April
 7, May 5, June 2

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

Science Teachers Association of
 New York State, Inc.
 Suffolk Section (SCSTA)
 P.O. Box 5101
 Hauppauge, NY 11788-0611

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STANYS MEMBERSHIP ENROLLMENT FORM

Available online at <www.stanys.org>

(Please complete all fields)

Date _____

Name _____

Street Address _____

City _____ State _____ Zip _____

County _____

Home Phone (_____) _____

School/Organization _____

Street Address _____

City _____ State _____ Zip _____

Business Phone (_____) _____

Subjects taught or position _____

Last year of membership _____

Section to which you wish to belong _____

Email _____

Payment: Check Payable to STANYS OR

Credit Card: Visa Master Card

Membership \$ _____

Donation \$ _____

Total \$ _____

Dues	Check One	
Rolling Membership*	<input type="checkbox"/> 1-year	<input type="checkbox"/> 2-year
Elementary	<input type="checkbox"/> \$42.00	<input type="checkbox"/> \$80.00
Intermediate/Jr.HS	<input type="checkbox"/> \$42.00	<input type="checkbox"/> \$80.00
High School	<input type="checkbox"/> \$42.00	<input type="checkbox"/> \$80.00
College	<input type="checkbox"/> \$42.00	<input type="checkbox"/> \$80.00
Associate	<input type="checkbox"/> \$42.00	<input type="checkbox"/> \$80.00
Retired	<input type="checkbox"/> \$21.00	<input type="checkbox"/> \$40.00
Student	<input type="checkbox"/> \$21.00	n/a
Free Student Membership	<input type="checkbox"/> College senior	n/a

(ONE TIME ONLY; Individual faculty recommendation letter required)

Enclosed is my tax-deductible contribution of \$ _____

To: STANY Foundation Fellows Conference Award fund

Membership dues are not refundable. You may join one STANYS Section of your choice.

***Membership begins the month you join and ends one year later on the last day of the month.**

Card Number _____ Expiration Date _____
 CVV2 Code _____ (Last three digits from signature panel on back of card)

Cardholder's Signature _____

Mail Membership Form to STANYS, PO Box 2121, Liverpool, NY 13089-2121