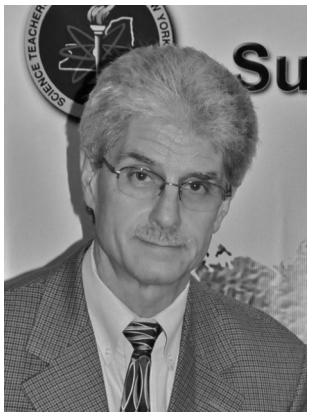
The Science Explorer

Suffolk Section: Science Teachers Association of New York State Newsletter

Volume 39 **Number 3** **Summer 2011**

The Chairperson's Corner

Glen Cochrane



On behalf of the Suffolk Section, I would like to thank James Ripka, the outgoing section Chairperson, for an outstanding job during the past two years. Under his leadership we have expanded our Spring Conference and offered many exciting programs for our members. We sponsored several paleontological expeditions, a tour of Atlantis Aquarium and the start of forensics workshops for teachers. I hope we can continue and expand upon these great programs.

In my thirty plus years of science teaching, I can tell you there is always something new on the horizon. We could be on the edge of some very significant changes in science education. Good education isn't cheap and districts are being forced into budgetary constraints with reduced state aid and the newly passed 2% property tax cap. The National Research Council (NRC) released "***A Framework for Science Education: Preliminary Public Draft"*** last summer for comments and it is due in its final form soon. This document could serve as the basis for revising our Core Curriculum guides for NY science courses and future regents assessments. We are also facing a revised teacher eval-

(Continued on page 3)

Inside this issue:

Spring into Science Conference a Big Success

Glen Cochrane

On Saturday 4/2/2011, more than 100 teachers gathered at the Wang Center at Stony Brook University for our annual "Spring into Science" conference. Teachers selected two workshops from choices a wide range of topics that included: nanotechnology, science fiction, technology tools, LI beaches, forensics, life in the universe, and biology labs. Our featured workshop was an extended geology tour of the Stony Brook Campus with Professor Gil Hanson. Over a dozen exhibitors presented their programs and demonstrations at a share-a-thon during our breakfast break. Members were thrilled by the many door prizes given away at the share-a-thon. Brian Vorwald (STANYS VP) attended and gave us an update on the efforts of the STANYS executive board in their political actions to maintain science standards in New Your State.

Professor Gil Hansen leads geology tour of campus

This year we moved into an online registration system that made it easy to sign-up for the workshops of your choice and even pay your annual dues with a discounted conference fee.

Chairperson James Ripka Welcomes Teachers

We thank CESAME (Center for Science and Mathematics Education) at Stony Brook for their support and assistance with the conference.

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.

http://www.stanys.org/

WHO'S WHO IN STANYS SUFFOLK SECTION LEADERSHIP

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

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

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Chairperson's Corner (*continued from page 1)*

uation system which will include assessment of student growth/achievement. Change in education is inevitable and we must do our best to maintain quality science education. Your STANYS executive board is involved in a consortium of fellow educational organizations that promote science education and encourage 21st century pedagogical practices for teaching and assessing students. This group will continue to advocate on behalf of science educators so that State Education Department considers our views when making educational decisions regarding standards, assessment, and evaluations. These educators will make every effort to see that the changes will keep NY a leader is science education. As the new Chairperson of the Suffolk Section, look forward to working with a fabulous team of dedicated section educators and our state leaders as we face potentially dramatic changes in public science education.

There are many opportunities for science teachers to grow professionally this summer. Take a look through this issue for various events and programs. The Suffolk Section is planning exciting events for next year. These include field trips, workshops, our materials fair (MATEX), and our Spring Conference. My best wishes for you to enjoy a well deserved vacation and I look forward to working with you next year. ■

Images from our Spring Conference

James Ripka, PhD

Save the Date!

Materials and Textbook Exhibit 2011

(MATEX)

Thursday, October 27, 2011

Islandia Marriott Hotel

Our next Materials and Textbook Exhibit will be held at the Islandia Marriott on Thursday, October 27, 2011. As in the past, we expect about 40 vendors to present the most recent textbooks, lab equipment, and computer programs for science educators. The vendors are always generous with giveaways and we have many door prizes to be won!! The event is FREE and will run from 3 pm to 6 pm. Don't miss this opportunity to find out the latest innovations to be used in the science classroom. Door prizes will be offered.

Science Olympiad Hosts Forty-Nine Teams from Suffolk County

Glen Cochrane

"C" Division Eastern Long Island Regional Coordinator

This year the Eastern LI Regional C Division (High School) competition went off without an issue. It was held on February 12 at Half Hollow Hills HS East. Forty-nine teams representing twenty-nine schools from Suffolk County gave their best efforts competing it 22 events. Teams of up 15 science students competed in a wide range of science and technology events. Sounds of music could be heard from instruments designed and constructed by students. Teams worked solving problems on disease, forensics, optics, wind power, astronomy, dynamic planet, fossils, ornithology, and ecology. Our young engineers constructed and tested musical instruments, wind powered fans, magnetic vehicles, and water powered rockets, balsa wood towers, 3-D proteins, helicopters, and everyone's favorite; sumo robots. Everyone crowded to watch the last event of the day which was the final showdown of the battling sumobots. Thanks to over 100 coaches and volunteers all events were well supervised and scored. A contingent of pre-service science teachers from Stony Brook University joined us and was treated to a day of science excitement.

The top 6 teams in the Eastern Region advanced to the state competition held on March 18-19 at West Point. These teams included:

The State Competition involved twenty-five events with the top 53 teams all regions of the state. The top two teams from the New York State Tournament went on to the National Tournament, which was held at the University of Wisconsin in May. The perennial powerhouse team of Fayetteville-Manlius from Syracuse once again took first place and Ward Melville High School from Setauket took second.

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

Teams begin organizing in the early fall. When schools register, coaches receive a coach's manual with a description of the events. Students split 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 lots of useful information. For information about registering a team, go to the New York State website: ***www.newyorkscioly.org***. ■

Forty Teams Compete in Middle Level Science Olympiad Tournament

Keri Lukin Page, Eastern Long Island Regional Coordinator

Science Olympiad is a national competition wherein a team of 15 students competes in events which test knowledge and skills in various areas of science and technology. This year, the 20 regional events for our B Division (grades 6- 9) ranged from designing an experiment with only the materials provided to solving a crime using forensic science skills to creating robots to battle each other. 40 teams from 26 different schools competed at Candlewood Middle School in Dix Hills on March 5, 2011.

This year was a very tough and exciting competition. The top 6 schools went on to compete at the state level at SUNY Ulster on April 8 and 9. This included two schools new to the state competition, Hauppauge Middle School and James Wilson Middle School. The six teams representing Suffolk at the state tournament were Hauppauge Middle School (6th), Islip Middle School (5th), James Wilson Young Middle School (4th), Port Jefferson Middle School (3rd), Paul J. Gelinas Middle School (2nd), and the new regional champion, R. J. Murphy Middle School. Gelinas went on to place second at the state tournament and represented New York at the national tournament on May 20 – 21 at the University of Wisconsin in Madison Wisconsin. Gelinas placed 7th out of 60 teams nationally.

(Continued on page 5)

(Continued from page 4)

Many students and coaches are already excited for next year. The events for next year will be selected early in the school year. Make sure to register your team early to receive your coach manual with event rules as soon as possible. Registration forms and other important information can be found at ***www.newyorkscioly.org.*** Be sure to check our regional link in the fall for an event list, team numbers and team schedules.

Whether you are a new coach or an experienced coach looking to pick up some pointers, the Coach Workshop is a terrific opportunity to meet with other coaches from throughout the state and learn from each other and from seasoned coaches and event writers. All participants will receive a CD containing valuable practice events and other materials which are tremendously valuable in preparing your team for the Olympiad. This year's workshop will be held on October 28 and 29 at the Ramada Conference Center in Fishkill, New York. More information will be available on the New York State Science Olympiad website as the date draws closer. ■

SCIENCE OLYMPIAD
Exploring the World of Science

Murphy JHS Science Olympiad Team—1st in Eastern LI Tournament, pictured at Minnewaska State Park before the state tournament (photo by Gary Vorwald)

Outstanding Students and Teachers Recognized at the 36th Annual Awards Dinner

Brian Vorwald, Awards Dinner Co-Chair

Each year the STANYS Suffolk Section presents an Awards Dinner at which outstanding science students and science educators are honored. The dinner this year was held on May 23, 2011 at the Islandia Marriott Long Island Hotel. Each high school science department from districts who are patrons of our *District Membership Services Program* had the opportunity to nominate an outstanding graduating senior to be recognized at the Awards Dinner. Thirty-three high schools recognized their outstanding seniors and three teachers (elementary, middle level, and high school) received our *Science Teacher Recognition Awards* for meritorious service as a science educators. The event was attended by more than 140 people.

Our 2011 Elementary Science Teacher of the Year was **Susan Turrini** who teaches at the Thomas J. Lahey Elementary School in the Harborfields Central School District and the Middle Level Science Teacher of the Year was **Ashley Bloch** who teaches at Islip Middle School, Islip Public Schools. **Pamela Eglin** who teaches at Bay Shore High School, Bay Shore Public Schools, was the 2011 High School Teacher of the Year.

Look for a comprehensive article in the Fall 2011 issue of this publication that will recognize our three Teacher of the Year Award recipients and all of the outstanding seniors who were nominated by their high schools. ■

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 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.

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

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 professional development credits, the *American Museum of Natural History* offers several courses as part of the ***Seminars on Science*** program. The courses are ONLINE and can be taken for up to 4 graduate credits each. Courses will also be run in early Fall and late Fall, (whichever works best for you). Registration for the Fall 1 session will begin on Aug. 15 and closes Aug.24.

Fall 1 Courses (Sept. 5—Oct. 16) include: *Evolution; Earth: Inside and Out; The Ocean System*; *Genetics, Genomics, Genetics;* and *Water: Environmental Science*. Fall 2 (Oct. 24—Dec. 4) will offer additional courses in *Climate Change, The Solar System,* and *Link Between Birds and Dinosaurs.* Registration for Fall 2 begins on September 26.

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.

You can find our more info about the courses and registration at *learn.amnh.org*.

Contact the museum if you have any questions—they are happy to talk about the program or the courses. ■

Phone: 800-649-6715

Email: *seminfo@amnh.org*

Website: *http://www.amnh.org/learn/*

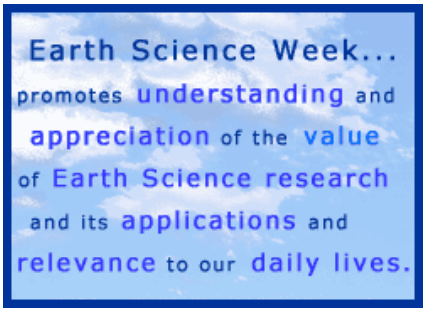
EARTH SCIENCE WEEK 2011 CONTEST THEMES ANNOUNCED

For Immediate Release

Contact: Geoff Camphire
gac@agiweb.org

Alexandria, VA – The American Geological Institute (AGI) is sponsoring three national contests as part of **Earth Science Week 2011**, celebrating the theme of "**Our Ever-Changing Earth," October 9-15.**

Students, geologists, and the general public are encouraged to enter this year's Earth Science Week photography contest, "A World of Change in My Community." Use your camera to capture the evidence of the long- or short-term changes taking place around our planet and even in your own neighborhood.



Students in grades K-5 are eligible to enter the visual arts contest, "Picturing our Ever-Changing Earth." Create a two-dimensional piece of artwork to illustrate the various ways air, water, land, and living things change over time.

The essay contest, "How Change Shapes our Planet," is open to any student in grades 6-9. In a brief essay, explain how interactions between Earth's systems can change our world over time. Discuss the processes used to study these change and how human life can be affected by geologic transformation.

For more information on these annual contests, including guidelines, deadlines, and information on how to correctly submit your entry, please visit ***http://www.earthsciweek.org/contests/.***

Earth Science Week is organized annually by AGI with support from U.S. Geological Survey, the AAPG Foundation, NASA, the National Park Service, ExxonMobil, ESRI, and others. To learn more about Earth Science Week, please go to ***http://www.earthsciweek.org/.***

The American Geological Institute is a nonprofit federation of 50 geoscientific and professional associations that represents more than 120,000 geologists, geophysicists and other earth scientists. Founded in 1948, AGI provides information services to geoscientists, serves as a voice of shared interests in the profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society's use of resources, resiliency to natural hazards, and interaction with the environment. ■

Suffolk teams from Paul J. Gelinas JHS (left) and Ward Melville HS (right) placed 2nd at the NYS Science Olympiad Tournament and competed at the National Science Olympiad Tournament held at the University of Wisconsin in May.

Suffolk Section Election Results

The results of our section elections are in the adjacent table. This was the first time that we conducted electronic voting and we did have a significant increase in participation. However, with over 200 members we would like to see more of you vote next Spring. The section qualifies for three Directors. Melissa Torre will serve as alternate. Thanks for voting.

2011-2012 Suffolk		
Chairperson/Director	Glen Cochrane	52
Vice-Chairperson	Sheilah Schumann	52
Secretary	Gary Vorwald	51
Treasurer	Angela Lukaszewski	53
Director	Angela Lukaszewski	38
Director	Gary Vorwald	37
Director	Melissa Montauk Torre	34

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.* ■

STONY BROOK UNIVERSITY

BROOKHAVEN NATIONAL LABORATORY

Summer Sundays 2011 July 17 - August 14, 2011

This summer, Brookhaven National Laboratory invites you to attend our Summer Sundays experience. Tour our world-class facilities, attend an array of dynamic science talks, see a different science show each week.

FREE!

No reservations needed.
Gates open 10 a.m. - 3 p.m.
All activities are available on a first-come, first-served basis.
Visitors age 16 and over must bring a photo ID.

Call (631) 344-2651

For several weeks this summer, the Laboratory welcomes members of the public to its site. We plan days that include visits to our facilities, opportunities to speak with our researchers, special activities for adults and children, and much more – and it's all free! Check back for more details.

July 17 - The Center for Functional Nanomaterials*

July 24 - Brilliant Light, Dazzling Discoveries

Tour the National Synchrotron Light Source and the next-generation NSLS-II, now under construction. See how scientists illuminate the inner workings of proteins, polymers, computer chips, and more. Take the synchrotron science quiz for a chance to win a special tour. Be enthralled by the "Science Laser Light Spectacular."

July 31 - More to Explore Day

A fabulous day of hands-on family fun! Use the basic scientific method to explore magnets, mirrors and more. Hop aboard a fire truck and learn all about the Laboratory's protective services. Behold "Phenomenal Physics with Mr. Fish."

August 7 - Storm Hunters

Learn how meteorologists at the National Weather Service forecast the weather and track storms across the New York metropolitan area. Watch the launching of a weather balloon at 3:30 pm. Enjoy the "Weather" show.

August 14 - Atom-Smashing Fun*

Visit the Relativistic Heavy Ion Collider, a world-class particle accelerator where physicists recreate the conditions of the universe as they believe it existed microseconds after the Big Bang! Stump a physicist, and meet "Einstein Alive."

*Recommended for ages 10 and over

Subject Area Representative (SAR) Reports

Biology (Living Environment)

Glen Cochrane, Biology SAR

I thought I'd share some useful resources that may be of use to the community of biology teachers. Another great resource are the book publishers. Once you adopt a text, be sure to get the codes for the online resources for students and teachers

T**he Biology Project** (http://www.biology.arizona.edu/)

Biology Project was developed at The University of Arizona. Teachers can assign problems sets for reviews before exams, or may want to assign an activity before students cover that topic in their laboratory. Excellent resource for genetics an immunology.

Access Excellence (http://www.accessexcellence.org/)

This site has been around since the 1990's and is rich with activities and links to many resources.

Howard Hughes Medical Institute (http://www.hhmi.org/coolscience/)

This is part of the huge website is a resource with an educators search engine, links to all the HHMI virtual labs, pod casts, and requests for free resources.

Learn Genetics (http://learn.genetics.utah.edu/)

Has lots of interactive components, virtual labs and a good source for developing a web quest on genetics. The mission of The Genetic Science Learning Center is to "make science easy for everyone to understand."

Science Education Hoppe (http://www.sciencesupport.net/)

This site has lots of material from the Biology DAL but I especially like her PBL's. From the home page look for Living Environment PBL. Kathy has been producing activities for problem based learning. This is a method of instruction which is student centered. It allows the student to work on a real world situation which incorporates multiple disciplines and differentiation of learning style.

Explore Biology (http://www.explorebiology.com/)

Kim Foglia developed this website for her students and teaching community. It is especially good for AP Biology.

The Biology Corner (http://www.biologycorner.com/)

Developed by Shannan Muskopf from St Louis. It contains a variety of lessons, quizzes, labs, web quests, and information on science topics. You can find lessons related to biology topics in the links listed under "topics" on the sidebar. Topics include: Ecology, Genetics, Anatomy, Cells, Scientific Method, and Evolution.

Websites with Lists of websites:

San Diego State University (http://naturalsciences.sdsu.edu/links.html)

"Hot" Biology Links (http://webhost.bridgew.edu/jabowen/links.htm)

Cengage (http://www.cengage.com/biology/discipline_content/biology_websites.htm)

Animations:

Superior quality from Sumanas: (http://www.sumanasinc.com/)

DNA Learning Center: (http://www.dnalc.org/resources/animations/)

Biology Studio: (http://www.biostudio.com/a_sitemap.htm) ■

News from College SAR

Linda Padwa, College SAR

There are several interesting opportunities available for candidates in science teacher preparation programs.

- Free membership in STANYS – see enrollment form elsewhere in this publication and submit it with a letter from your faculty advisor.
- Apply for a reduced rate membership in the National Science Teachers Association (NSTA). The membership rate for teacher candidates is only $34/year. Application information can be found on the NSTA web site (***www.nsta.org).*** Along with your application for student rates you will need to submit a letter from your faculty advisor.
- Reduced rate for students to attend the Suffolk STANYS Conference and other programs.

Another option that is made available through NSTA is the formation of a student chapter of NSTA on your campus. More details can be found at: ***http://www.nsta.org/about/collaboration/chapters/student.aspx***

Scholarship Opportunities for Science Teacher Preparation

There are several scholarship opportunities for those seeking initial certification as science teachers.

National Science Foundation Robert Noyce Scholarships – offered at Stony Brook University and Dowling College – for those interested in teaching science or mathematics in high-needs school districts ($10,000; two year teaching commitment)

Petrie Foundation Scholarship Loan Program – offered at Stony Brook University for those interested in teaching science, mathematics, or TESOL in New York City ($15,000; three year teaching commitment)

For more information about these opportunities visit the program web sites:

Stony Brook: ***http://www.stonybrook.edu/cesame/students/prospective-teachers.shtml***

Dowling: ***http://www.dowling.edu/noyce/***

MS in Geosciences with a Concentration in Earth and Space Science at SUNY Stony Brook

This program is intended for current science teachers who want to become certified in earth science. The program includes new graduate level courses which are aligned with the NY State Earth Science Curriculum. It is not necessary to be matriculated in the program to take the courses. The web site describing the program and the courses is at ***http://www.geo.sunysb.edu/ms-ess/***

Applications for this MS program are accepted at any time. They can be submitted at ***www.grad.sunysb.edu/admissions***.

The Graduate Record Exam (GRE) is NOT required. Before applying, contact the Earth Science Education advisor, Prof. Gilbert N. Hanson at ***gilbert.hanson@stonybrook.edu***

Major Sources of Learning – Now Free!

James Ripka, PhD., Chemistry SAR

The ***National Academies Press***, which represents the National Academies—*National Academy of Sciences, National Academy of Engineering, Institute of Medicine*, and *National Research Council*—is committed to distributing the reports of the academies to as wide an audience as possible. More than 4,000 pdfs are now available free for download. Previously these titles were for purchase. You can access them at www.nap.edu.

Here is a short selection and summary from the many science titles. Please visit this website and choose some summer reading materials that will enhance your classroom learning.

*"**Strengthening High School Chemistry Education Through Teacher Outreach Programs: A Workshop Summary to the Chemical Sciences Roundtable"*** A strong chemical workforce in the United States will be essential to the ability to address many issues of societal concern in the future, including demand for renewable energy, more advanced materials, and more sophisticated pharmaceuticals. High school chemistry teachers have a critical role to play in engaging and supporting the chemical workforce of the future, but they must be sufficiently knowledgeable and skilled to produce the levels of scientific literacy that students need to succeed.

"The Quantum Zoo: A Tourist's Guide to the Neverending Universe" The two towering achievements of modern physics are quantum theory and Einstein's general theory of relativity. Together, they explain virtually everything about the world we live in. But, almost a century after their advent, most people haven't the slightest clue what either is about.

"America's Climate Choices" This book makes the case that the environmental, economic, and humanitarian risks posed by climate change indicate a pressing need for substantial action now to limit the magnitude of climate change and to prepare for adapting to its impacts.

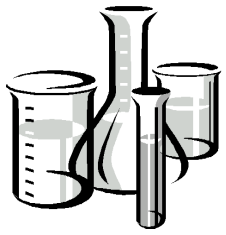
"Strengthening Forensic Science in the United States: A Path Forward". Scores of talented and dedicated people serve the forensic science community, performing vitally important work. However, they are often constrained by lack of adequate resources, sound policies, and national support. This book serves as a vital tool for law enforcement agencies, criminal prosecutors and attorneys, and forensic science educators.

*"**Implementing the New Biology: Decadal Challenges Linking Food, Energy and the Environment."*** As the second decade of the 21st century begins, the challenge of how to feed a growing world population and provide sustainable, affordable energy to fulfill daily needs, while also improving human health and protecting the environment, is clear and urgent.

The recent ***World Science Festival*** in New York City has placed videos of its seminars online, free. ***The World of Science Festival*** had over 100,000 people attend workshops, programs and demonstration in NYC in early June. http://worldsciencefestival.com/videos These videos are quite amazing. Some are only several minutes. While others are complete 90 minute presentations; a wealth of common sense science for you.

Try the ***Improbable Truth About Numbers***, as a start. Here's what you'll learn: Four out of five dentists recommend name brand toothpaste. One in ten people will develop a deadly cancer. 97% of statistics are made up on the spot. As humans, we have a tendency to take numbers as the whole truth. They give us a sense of objectivity. But as author Charles Seife explains in this introduction to The ***Illusion of Certainty***, no matter how concrete numbers are, the fact that they are measured and interpreted by humans makes them fuzzy, or even flawed. http://worldsciencefestival.com/videos/the_improbable_truth_about_numbers ■

*"The **National Academies Press**, which represents the National Academies is committed to distributing the reports of the academies to as wide an audience as possible."*



Do You Know Your Ecological Footprint?

Melissa Torre (Earth Science SAR)

With Earth Day just passing, ever wonder how much "nature" your lifestyle requires? The ecological footprint is a measure of human demand on the Earth's ecosystems. It is based on our consumption and pollution and compares that with the planets ecological capacity to regenerate. Using this assessment it is possible to estimate how many planet Earths it would take to support a human if everybody lived a given lifestyle.

One of the projects that I assign my students is "How Big is your Footprint?" I think that this is a question that we as teachers should not only ask ourselves but bring up to our students. This project goes on for about 6 weeks. I break down the project into steps to help the students organize their work. There are many ecological footprint calculators out there but the one I use I found to be easier for the students and more interactive.

How <u>BIG</u> is Your Footprint?

Overview: The ecological footprint concept is a way to roughly measure the impact of a person's choices on the environment. People have become so accustomed to their diet, cars, homes, and energy usage that they don't realize that the Earth will not be able to provide the needed resources indefinitely.

Objective: You will go online to calculate how much land area it takes to support your family's lifestyle.

Procedure:

Step 1: Go to http://www.footprintnetwork.org/en/index.php/GFN/page/calculators and calculate your family's ecological footprint. You need to answer the questions that are on the bottom, where it says "Enter Detailed Information".

** You will need some help from your parents to answer questions about your house size and electricity consumption per month.**

Step 2: PRINT OUT YOUR ECOLOGIC FOOTPRINT!! Have it signed by a parent/guardian.

STEP 1 & 2 DUE DATE: _____ (20 points)

Step 3: Come up with three things that you and your family can commit to change, that would reduce your global footprint.

Step 4: Research how each change would affect your specific ecological footprint.

<u>Don't forget to site your sources!***</u>**

STEP 3 & 4 DUE DATE: _____(40 points)

Step 5: Come up with a plan to implement the three changes into your family's daily life. Take pictures/video recordings and document whenever possible.

Step 6: After the one month is complete, re-calculate your family's ecological footprint and PRINT OUT your NEW ecologic footprint.

Step 7: Write a short summary about your findings. Were you and your family successful in reducing your ecological footprint? What thing that you changed was the most difficult? The easiest? Who in your family took the longest to adjust to the changes?

STEP 5, 6, & 7 DUE DATE _____(40 points)

The Benefits of Experience

Ed McDaniels, Retiree SAR

For all those teachers who decided to join the ranks of the retired, congratulations. Now its up to you to plan your everyday activities and to develop your own time table. Welcome to this brotherhood of former teachers. You did the best possible work there is to do. Now its time for you to enjoy the benefits of being formerly employed; its great!

Last year I shared my experiences about my first ever cruise. This year I'm happy to say I have doubled my cruise time and spent another week on the water this past winter. Some things were the same and some things were different, but all of it was great. My problem is a still working wife and lack of gentleman friends available to go cruising with me. My solution is to ask my travel agent to find me someone and to give a time frame for the cruise. The gentleman my travel agent paired me with, Bob, was a little tight with his money so we went on a really cheap cruise, $399 for 7 days. Last year I went on the Holland America Line (HAL) and enjoyed it very much. This year the cruise was with Norwegian Cruise Line (NCL) and I was also very happy with it. There were some things I like better about HAL but there were other things I liked better about NCL. I would go back cruising on either one.

Since it was an inexpensive cruise we went to less than hotspots. We did Roatan in Honduras, Belize City, Costa Maya, Mexico and Key West before returning to Miami. As I looked at the excursions available, I was not overly impressed. Last year, on my first cruise, I went on an excursion at every port. Some were not worth the time or money. This year I resolved not to do that. Instead of going to places I didn't want to go to, I bought a spa pass. I could use the spa any day, at any time it was open, 8:00 am to 10:00 pm. Heated whirlpool tubs, heated stone lounge, saunas, steam rooms chairs in heated pools with Jacuzzi-like jets all available to relax away your stress. The spa pass was not much more than a single excursion was last year. I was happy enough with my spa experience to even get my first ever massage. Men traditionally don't pamper themselves as often as women do. That is our loss. The

massage was very nice and would add that to the list of things I would gladly do again. You will remember that I said these were not hotspots. I notice Norwegian is not doing to these destinations next year. I guess I wasn't the only person unhappy with these choices.

What I am looking for in the future is a repositioning cruise. One that interests me leaves NY for 19 days. The first 7 days takes you north including Halifax, St John, Bar Harbor, Boston, Newport, and back to NY. Then in the next 12 days you leave NY and head to Ft Lauderdale, Ochos Rio, Cristobal, Puerto Limon, Cozumel and ends at Ft Lauderdale. It occurs at the end of October and the cruise line is finishing up the New England, Canada season and need to move the ship down to the Caribbean for the winter season. That's why it is called a repositioning cruise. So, 19 days with activities and food included. What do you think it should cost? It is only $1,299. That is less than $70 a day, its hard to find a motel room for that. Are there downsides to this, sure, the $1,299 is the cheapest, interior room which I have had twice and its been okay. Yes, you have to fly back from Ft Lauderdale, but that can cost less than $110. I realize that your average person can't get 19 days off from work but hooray I'm retired. If any gentleman is interested in being a traveling companion to me please email me and we'll see what we can arrange.

If you are still teaching, enjoy the summer. If you are retired, enjoy the rest of your life. ■

Long Island Whale Watching with CRESLI

Sonya Anderson, Environmental SAR

As the school year ends once again and we look towards a few relaxing weeks why not get some professional development with CRESLI this summer. CRESLI is The Costal Research and Education Society of Long Island who have joined forces with the Viking Fleet of Montauk to offer Whale Watching Cruises. CRESLI and STANYS have partnered to offer teachers professional development while enjoying a great day on the water searching for our largest marine mammals, WHALES! Teachers have opportunities for a number of different trips CRESLI offers. Sundays in July and August leaving from Montauk at 9:30am are full day whale watching cruises. Teachers may complete an on-line assignment before the trip and earn up to 8 hours of professional development per trip. Whales have been once again seen in the waters off Long Island with CRESLI having an 82% sighting success rate in 2010. This is a trip the whole family can enjoy.

If you are up for a longer more challenging ocean journey August 14-16 (it is 2 nights spent at sea) will be a trip to the Great South Channel. Teachers may earn up to 45 hours of professional development and get the adventure of a lifetime. Reservations are required for this trip. For more details on these and other opportunities CRESLI has to offer, checkout their website: ***www.CRESLI.org.*** Enjoy the summer! ■

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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

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

Our first meeting for

2011-12 is on

Thursday, September 8.

Other meeting dates will be announced in the next newsletter.

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

IF YOU MOVE, PLEASE NOTIFY STANYS/SCSTA OF YOUR CHANGE OF ADDRESS

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