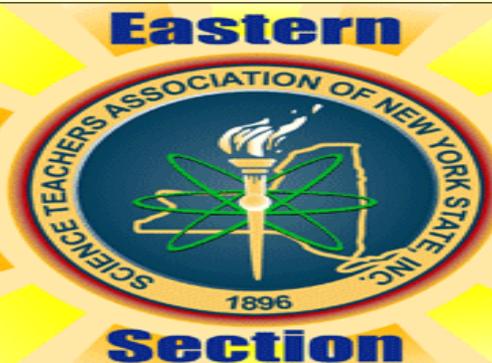


**Albany  
Columbia  
Fulton  
Greene  
Hamilton  
Montgomery**



**Rensselaer  
Saratoga  
Scholarie  
Schenectady  
Warren  
Washington**

## Eastern Section News

Mid-Winter 2011, Vol. 13

**Please Extend a Warm Welcome  
to STANYS Eastern Section's New  
SARs!**

**Kate Perry, Elementary SAR**

**Kelly Ryan, Living Environment  
SAR**



### **A Note from Your Eastern Section Chair.....**

By Steve Fielman, Chair/DAL for Intermediate

Email: [sfielman@verizon.net](mailto:sfielman@verizon.net)

As I write this, snow, sleet and freezing rain have affected about three-quarters of the country within the past few days, yet we sit here under bright sunny skies, as if nothing has happened. I find weekends are a time to catch up with some of what life throws my way and to reflect on the successes and challenges in my current classroom.

As a passionate believer in the value of science learning at all grade levels, I contend that one of the best ways to encourage our students is to let them see our own excitement and curiosity about the world around us. As we ask questions, wonder, and model ways to seek answers, we share a personal part of ourselves for students to connect with. Students need to understand that, although we might know more than they do, we don't have all the answers. One of the most valuable things we can impart to our students is how to look for answers to the questions we might have. Perhaps it is because I am in Middle School that I notice how quickly students start sounding and behaving like the teacher (or at least think they do!). Listening to their conversations with peers and other adults gives me an insight into what they think is important. When I hear a student say, "I wonder...." in conversation, I feel I have something to celebrate. I believe he/she is on his/her way to becoming a lifelong learner. It is our challenge to maintain that curiosity, to keep students thinking and to keep them wondering. As you continue to look for answers around science teaching, I hope you will plan to attend our Eastern STANYS Lab Day conference on March 5<sup>th</sup> at the College of St. Rose. (See program materials later in the newsletter). It offers something for everyone who is looking for more ways to reach more students...a place to find some answers.

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- Attached Lab Day brochure and  
registration form

Not a STANYS member?  
Join online today!

[www.stanys.org](http://www.stanys.org)

And finally, thanks to all of you for what you do each and every day to promote a love of learning in our students!



## Bubbles...Tiny Bubbles

By Paul Nooney, Jr. – Eastern STANYS Vice-Chair and Earth Science SAR

Email: [nooneypa@gmail.com](mailto:nooneypa@gmail.com)

I hope this newsletter finds everyone well rested from all the snow days we've had so far. If you're like me, you've fielded calls, texts and classroom visits asking for snow day odds. So far, I'm two for two. More on snow day odds a little later though.

Lab Day 2011 will soon be here and I hope to see many of you at my presentation: "Getting You On-the-line." In this session, I will guide participants in setting up and managing a Google Website. They are easy to use and easy to manage. If you'd like to check out the type of website you will set up, you can look at my website-

[sites.google.com/site/earthsciencenooney](http://sites.google.com/site/earthsciencenooney).

If this session is something you might like to attend, please go to [sites.google.com/site/earthsciencenooney/google](http://sites.google.com/site/earthsciencenooney/google) before attending Lab Day to set up a Google Account.

If all of this cold weather has got you a case of cabin fever, you can always look forward to the warm months of summer. Right around the time of the summer solstice will of course be the Earth Science Regents. This year, the scoring of the Earth Science and Living Environment Regents will be slightly different. For the first time this year, ES and LE will be using bubble sheets to SCORE the exams. This is a practice that has been done in other subjects for several years now. When scoring short answer questions, graders will fill out bubble sheets for the number of points scored on each question. These bubble sheets will then be sent off-site (my school is sending them to BOCES) to be scanned and scored. Multiple choice answers will also be graded this way. Scores will then be returned to the school to be used for grade reporting. Get in touch with your department chair or administrator to see how your school will be handling the new scoring. This will start with the June 2011 exams.

Lastly for this issue, a little snow day fun. I mentioned in a previous newsletter how we as Earth Science teachers are always asked for odds when it comes to predicting snow days. A friend has shared a shortcut with me and I thought I would pass it along. The DAS Snow Day Calculator (<http://david.sukhin.com/Weather/Snowday/Auto-Snowday.htm>) uses forecasts from the National Weather Service along with information you provide about your school district and administration to compute the percentage chance that you will have a delay or snow day. Does it work? Well, yesterday it told me I had 96% chance of a snow day. Today, slept in! Feel free to pass that along to all the people that ask for your snow day prognostication.

That's all for now. Stay warm, and we'll see you on March 5<sup>th</sup> at Saint Rose!



## Elementary SAR

By Kate Perry, Elementary SAR

Email: [kdhargra@hotmail.com](mailto:kdhargra@hotmail.com)

After many years of dedicated service, Debbie Valerio stepped down as your Elementary SAR this December. We are all grateful for her willingness to share her talents, and now I have big shoes to fill. Science and education have been passions of mine for as long as I can remember. I am currently in my third year as the kindergarten through 8th grade science teacher at the Robert C. Parker School in Wynantskill, NY. Prior to this, I was the middle and high school science teacher for DCMO BOCES in Norwich. While in Norwich, I held the vice-chairperson position for the Catskill Leatherstocking STANYS section. Networking with other science teachers has always been motivating and insightful, and STANYS's multifaceted forum has kept me professionally connected while I was the only science teacher in my building. That being said, when Steve asked me to take on the Elementary SAR role, it was an easy decision to say yes.

**Continued on page 3**

## Continued from page 2

I see my role as a facilitator of ideas and opportunities. Inquiry and problem solving opportunities continually surround our students, but it is up to us to guide them through the making meaning of it. Exchanging suggestions, questions, professional development events and our good ideas, will help us masterfully weave science into our students learning. Please contact me at [kdhargra@hotmail.com](mailto:kdhargra@hotmail.com) with any thoughts, ideas, or questions you'd like to share. I'm looking forward to it!



## Elementary Opportunities!

### Elementary Teacher Workshop at Five Rivers DEC Environmental Education Center Project Learning Tree: Environmental Experiences for Early Childhood

Saturday, February 19  
1:00 - 4:00 PM

Project Learning Tree (PLT) is a national interdisciplinary education program for teachers and youth leaders focusing on forest resources. This hands-on workshop will introduce PLT's Environmental Experiences for Early Childhood-instructional activities, which integrate nature-based exploration, art, literature, math, music and movement into early childhood education programs. Participants will receive a free PLT Environmental Experiences for Early Childhood Activity Guide full of hands-on activities geared for ages 3-6.

In-service credit may be arranged through the Greater Capital Region Teacher Center. Please call 518-475-0291 to register by Wednesday, February 16.

<http://www.dec.ny.gov/education/1980.html>

## Living Environment

By Kelly Ryan SAR Living Environment

Email: [kellyryan@ncolonie.org](mailto:kellyryan@ncolonie.org)



First I would like to acknowledge the retirement of Joyce Valente, former SAR Living Environment. For many years I attended Joyce's workshops at both our fall Siena conferences and our spring lab days. I always left those workshops inspired, invigorated and with something in my hands that I could use in the classroom. I know there are many, like myself, who were Joyce Valenti "groupies" over the years and we will all miss her creativity and dedication to the teaching profession and to the advancement of high quality professional development. I wish her much happiness as she moves on to this new phase in her life.

Now let me introduce myself. Some of you may recognize my name, as I have been the registrar for STANYS Eastern Section for the past year and a half. I decided to get more involved with STANYS now that my children are older and as I came to the realization that I'm a veteran (not old!) teacher who may have something to offer other teachers. This is my 23rd year teaching. Early in my career I taught in the Voorheesville and Saratoga School districts. I have been in the North Colonie District at Shaker High School for 19 years, currently teaching Living Environment and Forensics. I am also an item writer for the LE Regents exam, so I am abreast of new developments at State Ed.

One of the things I love most about the teaching profession is the opportunity (and need) to be a lifetime learner. This is especially true when teaching Biology, a field that changes so rapidly. To illustrate this concept please let me discuss some history; since Galileo developed the telescope, to the development of the Hubble spacecraft 400 years later, resolution of the telescope increased 1400x. Contrast that with DNA sequencing technology that has shown a 50,000X improvement in only 5 years!

**Continued on page 4**

Continued from page 3

So what do we do as teachers of such a rapidly changing field? That's right, professional development! Attend local and state STANYS conferences (Spring Lab day is 3/5/11). Look for opportunities for summer programs (many of which offer stipends to attend). Listen to online lectures such as HHMI's Holiday series (which I was privileged to attend this past December). Read a book (one I just read that really gets you thinking: Survival of the Sickest: A Medical Maverick Discovers why we need Disease by Dr. Sharon Moalem). Attend local lectures. There are a couple of local lecture series that might capture your interest. Union College is sponsoring a series of four lectures on genetically modified foods 1/20, 2/2, 2/16, 2/22 (<http://union.edu/N/DS/s.php?s=9155> for details). Also, the NYS Museum is reprising their "Cooking the Tree of Life" series on evolution 2/2, 2/9 and 2/16. These lectures are a lot of fun as well as informative! Last year I ate ostrich and alligator at one of them! <http://www.nysm.nysed.gov/programs/treeoflife/> for details).



So shake off those winter doldrums and give one of these a try!

**Don't forget to register for the  
Eastern Section-STANYS Lab Day  
At The College of Saint Rose  
Saturday, March 5, 2011**

The brochure and registration form are at the end of the newsletter. Registration deadline is February 23, 2011.



## **Greater Capital Region Science and Engineering Fair & Science Congress is Almost Here!!!!**

[http://www.science.rpi.edu/Science\\_Fair/](http://www.science.rpi.edu/Science_Fair/)

By Joan Wagner, Fair Director

Email: [jsw2012@aol.com](mailto:jsw2012@aol.com)

The 21<sup>st</sup> Greater Capital Region Science and Engineering Fair will take place on **March 26, 2011 at RPI**. Information about the Fair and all forms can be downloaded from the website, <[www.gcrsef.com](http://www.gcrsef.com)>

This is the regional fair for the Intel International Science and Engineering Fair and the STANYS Science Congress. The Intel ISEF will take place May 8-13 in Los Angeles, California. The STANYS State Science Congress will take place next June at the College of St. Rose, Albany, NY. Check the STANYS website: [www.stanys.org](http://www.stanys.org) for more information. The STANYS Science Congress is sponsored by STANYS to support student research and encourage students to choose science related careers.

Society for Science and the Public (SSP) is the sponsor of the Intel ISEF. The organization announced that it has a new sponsor for a national competition for participants in grades 6-8. This new competition is called the Broadcom Master. Our fair hopes to nominate students to participate in this national competition.



## Chemistry

By Maria Russo, Eastern STANYS SAR Chemistry  
Email: [chemlady302@yahoo.com](mailto:chemlady302@yahoo.com)

Happy New Year Chem teachers! Did you know that 2011 is the International Year of Chemistry, IYC? This is a great opportunity for chemists and chemistry educators, around the globe, to increase the public's appreciation of chemistry in today's world and to encourage students to consider a career in chemistry. Two 100 year Celebrations will also occur. Marie Curie winning the Nobel Prize in Chemistry and the foundation of the International Association of Chemical Societies, known now as IUPAC, the International Union of Pure and Applied Chemistry.

The unifying theme for the year is "Chemistry-our life, our future." It will consist of four quarterly themes, which are; energy, environment, materials, and health. The ACS, American Chemical Society, will incorporate these themes in the annual Earth Day celebration this April and the annual National Chemistry Week in October. You can download a free virtual kit at [www.acs.org/iyc2011](http://www.acs.org/iyc2011).

This same website will provide you with a wealth of information, activities, and ideas. If your school has a chemistry club, you are eligible to apply for a grant of up to \$250.00. In March, a global chemistry experiment centered on the theme "Water: A Chemical Solution" will begin. Students and teachers from around the world will collect data on water from their local lakes, rivers, streams, and drinking supplies then post their findings on an interactive website that will then become an educational resource.

This is an activity that your earth science and environmental teachers may also find useful.

Lastly, the ACS is highlighting a different aspect of chemistry every day, through the same website mentioned above, called "365: Chemistry For Life" and if you are a subscriber to ChemMatters, a publication for high school teachers, you can look forward to an upcoming issue devoted to IYC.

If you still want more information on IYC, you can go to the official website at [www.chemistry2011.org](http://www.chemistry2011.org).



### save the Date!!!

By Amanda Parker  
Email: [parkera@strose.edu](mailto:parkera@strose.edu)

Just a little reminder about the dates for the following Science Fairs:

Joseph Henry Science Fair and the STANYS Science Congress.

- **The Joseph Henry Fair will be held on Friday, March 25th.**
- **The STANYS Science Congress will be June 10-12th.**

Both will be held at The College of Saint Rose in Albany. Questions should be directed to Amanda Parker at [parkera@strose.edu](mailto:parkera@strose.edu)





## Physics

By Paul Fedoroff, SAR Physics  
 Email: [pafedoroff@bhbl.org](mailto:pafedoroff@bhbl.org)

Hopefully everyone is where he or she wants to be at this point in the year. Your Regents students are finally getting the hang of things, your AP class might be turning the corner and gaining some more confidence, and any other physics course has enough material to take you well into June. Remember the rules, you are not allowed to complain about a snow day.

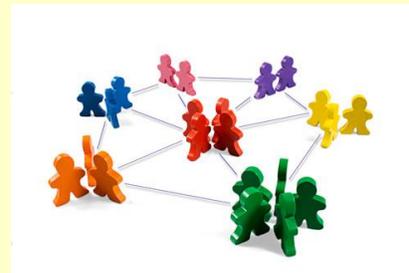
Whether that sounds like your situation or not, you should come to our next meeting of the Capital Region Physics Teachers Group. By the time you are reading this, our January meeting on the 25<sup>th</sup> has probably passed. If you didn't get word of it before this, then please send me an email so that I can make sure you are on the list. We will most likely meet at least once more, sometime during the spring. Bring a fresh idea or an old problem. Also, Union college colloquia email list, if you're not on it, send me an email if you are interested.

Nothing to report from the College Board. You should have seen the NY Times article about some other AP subjects. There was nothing really new there. Those revisions were talked about for a long time and actually had definitive dates attached to them. Whatever the future holds for APB, we'll have two full years before anything is put in to place. I have not seen any evidence to contradict this observation.

Lab Day is Saturday March 5. There are going to be some excellent physics sessions for any and all levels of education

At the end of March, all of the Physics SARs will be in a room with our DAL (Director at Large) Gene Gordon in order to plan the sessions for the next Rochester State Conference in the fall. What do you want to see? What was missing last year, or the last time you went? What sessions would make you need to go? At the very least, Fred Pidgeon the current the president elect will attend. That right there might be enough of a reason to go if you've ever met or hung out with Fred.

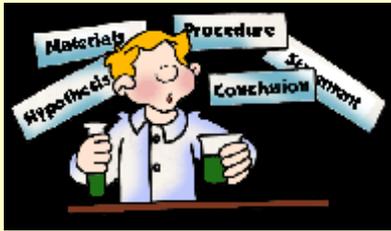
Here's a Doppler demonstration challenge. So many Doppler demonstrations involve some noisemaker approaching and receding from a student listener. Has anyone designed anything that could, without any doubt, show this same effect without any change in volume? I'm tired of saying "listen to this, not that."



## Networking

By Arden R. Rauch  
 Email: [raucha@union.edu](mailto:raucha@union.edu)

The ESNet and EnvNet, which distributes Earth and Environmental announcements about opportunities in the Capital Region, can also distribute information about relevant science opportunities, such as lectures or workshops, in the area. The best way to convey the information is with a succinct sentence or two and then refer to a website for details. BaP, the NSTA distribution network, is another means of distributing information. If you want to join either or both of the 'NETs' or become a Point of Contact for BaP, please email me. Send announcements to me, however, please make them appropriate and relevant. [raucha@union.edu](mailto:raucha@union.edu)



## Intermediate

By Elisabeth Milot, Intermediate SAR  
Email: [emilot@ichabodcrane.org](mailto:emilot@ichabodcrane.org)

"Tis the Season for Science Fair!" January and February is a busy season for students and teachers alike to prepare for the annual science fairs slated to be held in Spring, in many parts of our section. Even though I groan each year and ponder the thought whether to cancel this annual event I always get recharged when students are excited about doing a project of their choice.

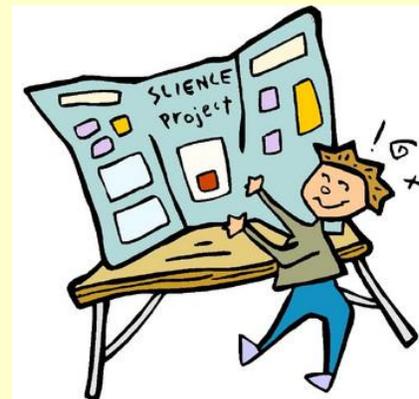
I, as the reluctant in January teacher, love science fair projects, because these science fair projects are ideal ways to allow students to integrate scientific concepts with math skills, technology and engineering. Students build structures, create models, and run trials to support their hypotheses. It is exciting to watch students question, wonder and ponder over their tasks. It is equally thrilling to watch students present their projects and talk knowledgably about science that was not part of the scheduled curriculum.

Certainly I have the reluctant students who have to be guided to choose a topic, or pair up students with an adult mentor to make sure they can manage this long-term project. But this is where we come together as a middle school and make it work. And that is really the heart of Science Fair, the coming together of students and teachers over a common task that has to be accomplished.

When all is said and done I always love seeing students present their work and I feel all the additional time and effort was worth it. I have often volunteered to be a judge at other science fairs and am always amazed to see what the intermediate student can accomplish. What better way to teach science than through inquiry, personal choice and investment, all the while finding ways to integrate science, math, technology and engineering.

Recently Google introduced its Google Science Fair and if you teach at the upper intermediate level (Age 13 and up) your students may be interested in submitting their project. Check out information at <http://www.google.com/events/sciencefair/index.html>

The deadline for submissions is April 4.



If you have any questions or concerns regarding your particular branch/level of science please feel free to contact your STANYS Eastern Section Subject Area Representatives:

Chemistry - Maria Russo - [chemlady302@yahoo.com](mailto:chemlady302@yahoo.com)

College/Pre-service - Pat Price - [pprice2@nycap.rr.com](mailto:pprice2@nycap.rr.com)

Earth Science - Paul Nooney - [nooneypa@gmail.com](mailto:nooneypa@gmail.com)

Elementary – Kate Perry: [kdhargra@hotmail.com](mailto:kdhargra@hotmail.com)

Env. Science/BaP - Arden Rauch - [raucha@union.edu](mailto:raucha@union.edu)

Intermediate - Elisabeth Milot - [emilot@ichabodcrane.org](mailto:emilot@ichabodcrane.org)

Living Environment – Kelly Ryan [kellyryan@ncolonie.org](mailto:kellyryan@ncolonie.org)

Physics - Paul Fedoroff - [pafedoroff@BHBL.org](mailto:pafedoroff@BHBL.org)

Retirees - Larry Smith - [lfiziks@aol.com](mailto:lfiziks@aol.com)

Lab Day – Christine Stankavich - [cegnaczyk@aol.com](mailto:cegnaczyk@aol.com)

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Newsletter - Nate Covert - [NMC1205@yahoo.com](mailto:NMC1205@yahoo.com)

Siena Conference -Theresa Newkirk - [t.Newkirk@saratogaschools.org](mailto:t.Newkirk@saratogaschools.org)

Science Congress & Joseph Henry Science Fair - Amanda Parker - [parkera@strose.edu](mailto:parkera@strose.edu)

Science/Engineering Fair - Joan Wagner - [jsw2012@aol.com](mailto:jsw2012@aol.com)

Science Olympiad - Scott Holdren - [sholdren@rcscsd.org](mailto:sholdren@rcscsd.org)

Chair/DAL for Intermediate - Steve Fielman, - [sfielman@verizon.net](mailto:sfielman@verizon.net)

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### 13<sup>th</sup> Annual Spring LAB DAY

**WHEN: MARCH 5, 2011**  
**WHERE: COLLEGE OF ST. ROSE**

The College of St. Rose is located between Madison Ave. and Washington Ave. near downtown Albany. Lab Day will be held in three buildings near the Campus Green. Parking will be easily available in Lots P1 and P2. For further information see the college website: <[www.strose.edu/visitors](http://www.strose.edu/visitors)>.

The Eastern Section of STANYS is honored to have Carol "Krill" Carson as the Keynote Speaker for our Thirteenth Annual Spring Lab Day. Krill is a Visiting Lecturer in the Biology Department at Bridgewater State College and is the Outreach Education Coordinator for the Captain John Boats out of Plymouth, MA. Bringing research into the classroom at all levels has been her passion. Amazingly, Krill will be bringing Kristal, a 25 foot, 1 year old humpback whale with her as well as many other artifacts! Her humorous and informative presentation will insure that we will know how to season our classes & labs with lessons learned from "Salt", a whale she has been studying for many years.

TIME	EVENT	LOCATION
8:45 - 9:15	Registration & Refreshments, Continental Breakfast	St. Joseph Hall
9:15- 10:45	Session 1 Workshops	Science Center Albertus Hall
10:45-11:00	Introduction: Dr. Richard Thompson, Dean of Math and Sciences, College of St. Rose	St. Joseph Hall
11:00 - 11:45	Keynote Address: "Season your Lessons.. with SALT: Using Marine Research to Spice Up Your Lessons" Carol "Krill" Carson, Biology Department at Bridgewater State College, MA & Outreach Education Coordinator for the Captain John Boats out of Plymouth, MA.	St. Joseph Hall
11:45 - 12:00	Announcements Door Prizes	St. Joseph Hall
12:00 - 12:45	Luncheon Buffet, Beverages, Desserts	Events and Athletic Center
1:00 - 2:30	Session 2 Workshops	Science Center Albertus Hall
2:30 - 3:00	Lab Day Evaluation Submission Professional Development Certificates	St. Joseph Hall

Session code	Workshop title	Workshop Description	Presenter	Subject area	Level
A	Candies, Bubbles, Oh My! Revisiting Cell Membranes	Prepare to get your hands wet, and minds working with an interactive workshop that looks at modeling and inquiry based approaches to helping students form a solid understand of the cell membrane. The nature of the tools to be presented extends from simple structure and function to as elaborate as endosymbiosis, so all levels are welcome! This workshop is supported by the Astrobiology Teachers Academy at Rensselaer Polytechnic Institute.	Annie Chien, IB Bio, Schenectady HS & Ruth Russell New Visions Scientific Research & World Health Program	Bio, STEM	MS, HS
B	Chemistry in the Dollar Store!	Participants will receive instructions and explanations for Mini-Lab activities using supplies from any "Dollar Store". Come see what fun you can have reinforcing student knowledge, skills and ingenuity, with basic & inexpensive equipment.	Maria Russo, STANYS SAR Chemistry & Judy Kubik, Cohoes HS	Chemistry	E, MS, HS
C	Balloon-Physics Lab	This workshop will provide an opportunity to build your very own balloon contraption and then use it in the lab. This is a fun hands-on physics lab to bring back to your students.	Paul Fedoroff, STANYS SAR Physics Burnt Hills - Ballston Lake,	Physics	HS, Adapt to all
D	Sustainable Living	Learn how to measure your energy use and make informed, energy-wise decisions. Engage in hands-on activities, receive a teaching tool kit you can use with your class to explore sustainability practices in energy, water, transportation, food, and the consumption of goods. Following the workshop, you and your class can qualify for incentives and prizes based on your implementation of sustainable actions.	Jamie Joanethis-Crouse, NYSERDA	STEM, All	MS, HS
E	"Get Out!"	No money for fieldtrip buses? No time to plan a series of class outings? Even without fieldtrips, nature is still nearby! Where? How to get your students there? And then what to do? Participants will learn location details, meaningful activities, and how to inspire appreciation and stewardship of the natural world.	Arden Rauch, STANYS SAR Environment	All	E, MS, HS
F	School Yard Plants	An investigation into common plants found in a schoolyard. Basic identification techniques and classification of native and non-native plants, from trees to moss. Explore the diversity of plants in a square foot of lawn and estimate the number of dandelions in the playground using random sampling.	Anita Sanchez, Freelance author & educator	Bio	E

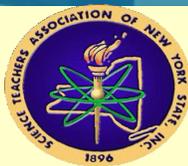
G	Making a Baby Lab (Genetics)	This activity is a crowd pleaser. It is the lab that most of my students talk about when they come back and visit me after they have been out of my class for a number of years. In this lab students will simulate making a pedigree, karyotype, gametogenesis, fertilization, chromosomal mutations and the role that fertility treatment can play in human reproduction. It really gets students to think about each step of reproduction.	Leigh Feguer & Danielle Budlong Schenectady HS Biology	Bio	HS
H	Getting Yourself "On the Line"	Learn how to make an easy to set up and manage website using Google. Please go to <a href="http://sties.google.com/site/earthsciencenooney/google">sties.google.com/site/earthsciencenooney/google</a> before Lab Day to register for a Google account.	Paul Nooney, STANYS Eastern Vice Chair, SAR Earth Science, Brittonkill CSD	STEM, ES	E, MS, HS

### SESSION 2: 1:00-2:30 PM

Session code	Workshop title	Workshop description	Presenter	Subject area	Level
Q	Teaching the Living Environment through Astrobiology	You will leave this workshop with a few lessons and labs that teach the Living Environment using astrobiology.	Jason Brechko, Glens Falls Middle School & RPI Astrobiology Teachers	Bio, STEM	MS, HS
R	An introduction to Nano Technology in the Middle School Classroom	In this Math/Science unit we will show you simple, safe activities to have your students get a feeling of what the fuss is about nanotechnology, from introductory activities on what is a billionth, a nanometer, or building a buckyball! Participants will examine how properties of substances in the nano state do not behave the same by experimenting with nano-cotton, nano size iron filings, and more.	Bob Neudel, Science, Bridgett Frary, Math The Albany Academies	Bio, STEM,	Upper E, MS
S	"Toying" with Biology	Learn how you can use inexpensive toys to carry out hands-on activities and demos that correlate with the Living Environment curriculum. Concepts we'll "toy" with include, transcription and translation; mitosis and meiosis; embryonic development and more!	Kelly Ryan, STANYS SAR Registrar, Biology, teacher, N. Colonie HS	Bio	MS, HS
T	Technology in the Physics Classroom	This workshop will focus on the different types of technology, from simple to much more complex, available when teaching Physics Lab topics. Hands	Ann Marie Condes	STEM, Physics	HS

V	Off the Grid: Solar Electric & Wind at Fox Creek Farm CSA	In this workshop, we will look at the opportunities and challenges of generating your own electricity with solar and wind to supply energy to an organic vegetable farm.	Sara & Raymond Luhrman, co-owner/operator Fox Creek Farm	Bio Physics, STEM	HS
W	Here Comes the Sun	What can you learn about shadows, seasons, and the motion of the Sun by using models? Build a model of your own and find out!	Becky Remis, STANYS Membership, Schalmont HS	ES , Gen	All
X	Mapping Invasive Species with iMap Invasives	This workshop will give educators the basic tools to conduct an invasive species mapping project with students that will contribute real data to the NYS invasive species database. Educators will learn identifying traits of some common invasive plants, GPS use, and how to enter data in iMapInvasives. Participants will become registered users of the database.	Jennifer Dean and Shereen Brock, New York Natural Heritage Program	Bio, STEM	all levels
y	From Eggs to Songs	Birds are common school yard inhabitants! Exploring the characteristics, habits, and habitats of local birds we will cover form and function, adaptations, food webs, microscope/hand lens use, creating an experiment, and natural resource conservation. Curricular ideas and lessons are designed to engage elementary students in primary research, hands on classroom activities, and interdisciplinary learning focusing on birds.	Kate Perry, STANYS SAR Elementary, Robert C. Parker School	Bio, general	E, adapt to All
Z	Science on the Fly! - Conservation Through the Lives of Adirondack Loons	Workshop participants will learn about loon natural history, and the role of this species as an environmental indicator, as well as how to integrate this innovative curriculum into their science classes. Teachers will have the opportunity to participate in and learn about the different components of the <i>Science on the Fly!</i> curriculum, including the Teacher's Manual; introductory video for the Loon Migration unit; classroom activities; environmental service learning projects resources for the Mercury and Acid Rain unit; and website	Nina Schoch BioDiversity Research Institute's ADK Center	Bio, Enviro, adapt to All	MS, HS

**Registration form on next page.**



Join Us for Another Great Lab Day with Your Colleagues!

Certificates of Participation for Professional Development will be provided.

Registration Deadline: Postmarked no later than February 23<sup>rd</sup>.

Registration Fee:

STANYS Members: \$30.00 Non-members \$35.00 Pre-Service Teachers \$20.00. Please make checks payable to STANYS Eastern Section. Sorry, No Purchase Orders accepted.

Mail Registration Form to:

Kelly Ryan, Registrar, 9 Heather Lane Rensselaer, NY 12144

Registration Questions? [kellyryan@ncolonie.org](mailto:kellyryan@ncolonie.org)

Questions? / Concerns?

Contact Colette McCarthy, Lab Day Coordinator 518.281.6991 or

[mccarthy@schenectady.k12.ny.us](mailto:mccarthy@schenectady.k12.ny.us)

In the event of inclement weather, check the STANYS Eastern Section website: [www.eastern-stanys.org](http://www.eastern-stanys.org). Look under Eastern Section Activities, Lab Day.

Registration Form

Name: \_\_\_\_\_ Title/Position: \_\_\_\_\_

Preferred Address \_\_\_\_\_

City \_\_\_\_\_, State: \_\_\_\_\_ Zip: \_\_\_\_\_

Preferred Phone: (\_\_\_\_) \_\_\_\_\_ Home \_\_\_ School \_\_\_ Cell \_\_\_

Preferred Email: \_\_\_\_\_ Home \_\_\_ School \_\_\_

School Name: \_\_\_\_\_ Level(s) Taught E \_\_\_ MS \_\_\_ HS \_\_\_ College \_\_\_

Session Selection: Please provide a first and second choice. Every effort will be made to schedule your first choice, but some sessions have limited enrollment. Placement will be based on date registration is received. Register Early!

Amount enclosed:

\_\_\_ \$30 I am a STANYS Member \_\_\_ \$35 Non-Member Rate \_\_\_ \$20 Pre-Service Teacher

Session 1 \_\_\_\_\_  
(First Choice)

Session 1 \_\_\_\_\_  
(Second Choice)

Session 2 \_\_\_\_\_  
(First Choice)

Session 2 \_\_\_\_\_  
(Second Choice)