

Eastern



Section

STANYS-Eastern Section

Spring 2016

Rensselaer, Schoharie, Schenectady, Warren, Washington

Katy Perry,
Eastern Section Chair
easterndirector@stanys.org.



Hello Fellow STANYS members,



What a busy winter and roaring spring! The Eastern Section has some great changes to our Board. I would like to welcome our new Elementary SAR, Poal Carstensen Sr., from North Warren Schools. Poal is taking the role over with energy and great ideas. Our Vice- Chair, Bill Brown, is now also our Chemistry SAR. Maria Russo, the past Chemistry SAR, is fortunately not leaving us, just finding a new niche. Bill is also excited for the SAR challenge.

A new DAL position for Special Ed and ELL has been successfully created- now we need a local SAR. If you know any science connected Special Ed or ELL teacher who would be a great Eastern Section SAR please let us know.

Our Pub Science Events continues to be grand successes! In January, Richard Perez, the director of Solar Energy Research at the Atmospheric Sciences Research Center, at University of Albany, presented "Solar Power, Lighting the Way", overviewing the benefits of Solar Power at The Point, in Albany. Richard shared innovative technologies, cost analyses, and ideas for the future. We all left motivated and inspired. Some of his work is posted here: [Solar Power](#). Dr. Ben Placek, presented "Exoplanets: Hidden in the Light", at Clinton's Ditch in February. Dr. Placek is the Instructor of Physics and Astronomy at Schenectady County Community College and exoplanet researcher. He shared findings on how transits are used to find exoplanets and some new finds. Check out his TED talk [TED TALK!](#) March's Pub Science, "Invasive Pests and the Fate of Our Forests" by Jerry Carlson, DEC Research Scientist, at Swifty's in Albany, was just as insightful. April and May events are still in the works!

We are actively planning workshops, conferences, updates, and professional development opportunities for you! Our SARs and DALs met on March 4 to explore how they can best provide support for all of you during the transition to new science standards in New York. We would like to hear directly from you! What do you need, for professional development, curricular support, and three dimensional standards interpretation? Join us on April 4, at 5pm, at Siena College to share your thoughts. We will meet in the main Library. You'll also hear updates and preliminary election results.

Thank you to all of you who responded to NYSED's last Science Learning Standards Survey. Your responses and comments were considered and a recommendation is being prepared for the Board of Regents consideration. STANYS will keep you informed and prepared as changes come. Focusing on inquiry, questioning, and the active doing of science keeps the learning inspirational as well! As always, if you have questions, comments, or ideas, send me an email at perry.kate23@gmail.com.

See you all on April 4 at Siena Library!

Living Environment

Kelly Ryan

Living Environment SAR

kellyryan@ncolonie.org



As we await the results from the NYSSLS survey that was recently

conducted by the State Education department and wonder where science education is officially heading... it is not too early to envision what three-dimensional science education might look like in our classrooms. I recently attended the DAL / SAR planning meeting and heard a presentation by Brett Moulding who co-authored the book *A Vision and Plan for Science Teaching and Learning*, which provides insight into planning lessons aligned with NGSS and *A Framework for K-12 Science Education*. After hearing him speak, I feel more comfortable with the three dimensional model NYS is looking to implement. The eight Science and Engineering Practices are simply what the students *do* ... and Brett organizes them by purpose: Gathering (obtain Information), Reasoning (evaluate information), and Communicating (communicate information). He mentioned that the most important (and often the one missing from our lessons) as being the *Reasoning* component whereby we have the students analyze and evaluate. Often times we have our students gather information and then merely

communicate it to others. Next he focused on the Disciplinary Core Ideas, which are to be *used* by the students to make sense of phenomena or to solve problems. The DCIs should not be the *product* of education as has been the case traditionally. This is a big paradigm shift in science education! Brett also spent considerable time emphasizing the role of the seven Crosscutting Concepts. These are the unifying themes that transcend *all* of the sciences. Again, the way he organized these concepts into three categories made them more user friendly: Causality (determining cause and effect relationships), Systems (defining systems to investigate) and Patterns (using patterns as evidence). We also had the opportunity to participate in a few lessons that were designed, using this three dimensional approach, in order to see what it might look like in a classroom. I felt energized at the end of our long day! Brett ended his talk with an analogy... If a gym teacher taught the students all the rules and regulations of basketball and had them read about the techniques used and then tested them to be sure they knew everything... and then threw them a basketball...would they be able to play basketball? Probably not, since the students had never done it! Unfortunately, this is how we've been doing science education in NYS. It's time to shift gears! I ordered Brett's book and I'm starting to look at some of my lessons and attempting to restructure them

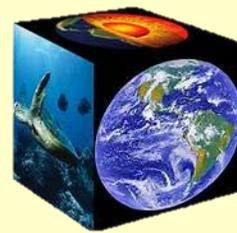
with respect to the three dimensions. I'm getting excited about the future of science education in NYS!

Earth Science

Laura VanGlad

SAR Earth Science,

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Hello. I hope everyone has been having a great year. It's hard to believe

there are only a few months left. I've been very busy going to conferences and workshops. I've even presented a few times. The Eastern Section conference in October went very well. I presented (at both the local and state conferences) with our intermediate SAR Jen Gecewicz on Growth Mindsets. I went to a session on Earth Science Every Day given by Shannon Hanson. The premise was to use the first few minutes of class to collect different data/information on different days of the week over the course of the year. Examples include: hours of daylight and temperature at locations of various latitudes, the moon's phases (take daily), plotting earthquake epicenters and station model practice of that days weather. When you reach that topic during the year your students have data collected to analyze for their lab. At the state conference, I was one of the

presenters at the Earth Science Tricks of the Trade session organized by our ES DAL Becky Remis. About a dozen of the SAR's shared demos, lessons and strategies to use in the classroom. You can access many of these at [ESSTANYS](#). The hardest part of going to the conference is picking out which workshops to go to. There are so many good ones.

My most recent conference is the Geological Society of America conference that I am at today. I am at a technical session on Connecting K-12 and Higher Education: What Teachers Need, What Faculty Can Offer. This encompassed 9 different mini sessions. Here is a short recap of some of the sessions. If something interests you, more information is only a computer click (or two) away. 1. CESIUM is a part of Project GEODE that is building a library of virtual globe-based resources for use in courses. You can do things in 3-D if you have virtual reality headsets. Cesium has the ability to "punch a hole" in the surface and place 3D models and data representations in the sub-surface. One of the things I thought was the most interesting was that it was similar in some ways to Google Earth but with this program you can scroll through the Earth changes through time periods. 2. Dr. Ebert spoke about the ESPRIT listserv (Earth Science Peer Resource for Improved Teaching) provided by the Dept. of Earth and Atmospheric Sciences at SUNY

Oneonta. It is a forum for peer-to-peer professional development. Teachers may subscribe by going to [mentor listserv](#) or by e-mailing James.Ebert@oneonta.edu. ESPRIT has over 2000 subscribers, so many of you are probably aware of it. If not, this is one listserv you should be on. It is a great forum for free professional help for teachers from other teachers. 3. Anna Vaculik and Eugenio Marcano of Mount Holyoke College and Susan Howes Conrod of Dutchess Community College presented an ArcGIS story map where students in grades 5 through 8 become "geology detectives" working a 4.56 billion year old "cold case." Equipped with an interactive field trip guide, the class examines evidence and clues that focus, in this case, on how the rocks and landscape of Dutchess County, New York were affected by the Taconic Orogeny. An ArcGIS story map is a tool that can be used by a whole class or by an individual student. It can be applied in a classroom setting for those unable to head out to the sites, or as a teaching aid for students before they head to the sites or to learn more about geology in other parts of the world. Their ArcGIS story map was interesting and got me thinking about possibly making one of my own over the summer. 4. The Society of Exploration Geophysicists (SEG) has established a geoscience-focused wiki on "Geology 101" topics (<http://wiki.seg.org/>) with articles on a range of Earth science topics authored by

registered wiki editors that are students or professionals in the discipline. Example wiki pages include plate tectonics, global warming, desertification, extinction, and more. This is a free, reliable resource of geoscience content for students and classrooms. 5. The Pennsylvania Earth Science Teachers Association (PAESTA) has a podcasting series to help aid in the teaching of earth and space science, and in some instances supply data and activities to assist the teacher in teaching a particular topic or concept. They are constantly adding more podcasts. Teachers can submit a discipline question on the PAESTA website and the science content. Experts will begin the process of providing the answer. Podcasts can be accessed at [podcasts](#).

If you would like some great professional development in the near future I suggest the pub science events coming up. Monthly Pub Science events are short (about 2 hrs. of PD) and informative with a different guest presenter monthly. All you do is come, order your food and drink (self-pay), relax and listen to the presenter. Also, the NYESTA Annual Geologic Field Conference that will be hosted at SUNY Oneonta this summer. They have scheduled an array of interesting events for you to go to. The early registration conference fee is \$130 for current NYESTA members (all events, field trip transportation and food included-fee is slightly higher for non-

members). Housing is available to you for a nominal fee of \$35 per person per night if needed. I went to their conference last year and had a great time. I'm looking forward to this one, closer to our region. Perhaps I'll see you at one of these events. If so, please don't hesitate to introduce yourself. I'd love to see you there.

I hope everyone has a good rest of the year. Good luck to all your students on their regents exams.



We now have our own Eastern Section Facebook page. Visit and request to join the group!



Visit STANYS Facebook pages, click on the logo



Poul Carstensen
Elementary SAR
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I began my journey into teaching later in life than most. At 40 years old, going back to college was rather daunting. I had great support from my wife and three children. I graduated in 1999 and began teaching in 2000.

My first job was at a small rural school. I became friends with one of the high school teacher who suggested I attend a conference of science teachers, called STANYS. My trip to the Catskills was one of the best experiences of my new teaching career.

I presently teach fourth grade at North Warren Central School in the Adirondacks. It is a K-12 district with over 500 students.

After this past conference, I decided to become more active in STANYS. I applied to be an SAR for the elementary grades. It is my intent to recruit teachers to become more involved. STANYS clearly has all the tools today's young teachers need to have a successful science program in the curriculum. It also can teach an old dog new trick, as I so clearly am an example. Now - how to accomplish this goal?

To begin with, we (STANYS) need to understand the day of an elementary teacher. Unlike those in middle and high school science teachers that only teach science, elementary teachers also teach English Language Arts, Social Studies, Math, and Science. We have to put into our schedules music and art classes, specials that may have to do with social issues and various assemblies sprinkled throughout the year.

Our programs for the elementary teachers must first, and foremost, consider the time restraints the K-6 teacher has and go from there. We need to help the K-6 teacher get "more bang for their buck" for the time they do science. STANYS conferences and workshops consistently provide hands on, inquiry-based activities teachers can take to the classroom.

We just need to bring them in. I look forward to the challenge and working with all my STANYS colleagues.

Our 2016 Election is near! The positions that are up for vote are:

- Chairperson
- Vice-Chairperson
- Secretary
- Director (2)
- Treasurer

Candidate for Director

Maria Russo



Member of STANYS for over 25 years.

Maria is a former chemistry SAR. She served as a

STANYS director for the past five years and would like to remain in this position to help the organization continue to evolve and to ensure that the best professional development is offered to the science teachers around the state.

Candidate for Chair and Director:



Katy Perry - Running for re-election! I enjoyed serving as your Eastern Section Chair. I have helped to

coordinate and support our conferences, Pub Science, and outreach events. I am currently also our Eastern STANYS Section Director. I am in my eighth year as a K-8th grade science teacher at the Robert C. Parker School in North Greenbush. Previously, I taught 6th- 12th graders science

for 5 years at DCMO BOCES, in Chenango County. All of these experiences have helped me understand the diverse needs of our membership. Presenting yearly at the Eastern Section's Conferences and the state STANYS Conference in Rochester, I enjoy sharing ideas and techniques, and volunteering for section events. I have been a STANYS member for over 10 years, and served on two sections' boards. I am also a member of the NYSED Science Standards Steering Committee, which reviews and makes recommendations to the Board of Regents regarding the new Science Learning Standards. Continually seeking ways to increase membership and outreach, I urge my colleges to participate, contribute, and collaborate with our local science teachers. Understanding the importance of collaboration, I look forward to continuing to work with our section as Chairperson.

Candidate for Vice Chair:



Bill Brown

Candidate for Treasurer:

Fran Lohnes

Candidate for Secretary:

Elisabeth Milot -



Elisabeth has been teaching for 20 years at the Ichabod Crane Middle School. She has been an active member of the

Eastern Section Board since 2005 in various positions. She has been secretary for several years and is looking forward to remaining in the position.



Earth Science Teacher Workshop DH Cadwell Earth Science Workshop

Saturday, May 7, 2016
| 8:00am - 5:30pm
New York State Museum
| Albany, NY

This one-day earth science teacher workshop will consist of talks by State Museum scientists and a State Museum collections tour. Lectures and activities will cover topics on geologic time, evolution and fossils, plate tectonics, rock and mineral identification, economic geology of NY, climate change and glacial geology, extinction of Pleistocene mega fauna, and geologic hazards. In addition, there will be open discussions regarding future trends in earth science education and the future of geoscience literacy.

The workshop fee of \$35 includes coffee and snacks and lecture activity outlines. Participants are responsible for providing their own lunch* and transportation to the Museum.

*Lunch options include off-site restaurants or participants may

choose to bring a bagged lunch—space at the Museum will be provided for those who choose to bring a lunch. A list of off-site restaurants will be provided at the workshop.

Registration deadline is April 29, 2016 and the workshop is capped at 35 attendees.

For more information, including the application form, please go to: <http://nysm.nysed.gov/education/teacher/workshops/earthscience/index.html>



**SAR Chemistry/Director,
Maria Russo
chemlady302@yahoo.com**

Happy Spring Everyone!

Another school year will be winding down soon and then summer will be upon us. While most teachers don't want to spend their entire summer doing school work, it will be a good time to read about NGSS and what changes may soon be taking place with our science standards. Don't worry too much over this just yet as the Board of Regents still has to give the go ahead, then your school district will need to give you time to do some curriculum writing and more time for implementing them; and then the new exams must be written. This will not take place over night; but

it is good ideas to familiarize yourself with them and to start thinking about how you can tweak the lessons you already have.

On another note, this is the last article I will write for the newsletter as your chemistry SAR. Since I am now retired, I thought it best to retire from this position too. Your new



chemistry SAR is Bill Brown, chemistry teacher extraordinaire, from Queensbury high school. Bill has been facilitating workshops at both our local Siena conference and our state conference in Rochester for the past few years. I know many of you already know him and have attended one or more of his workshops. In addition to teaching chemistry, Bill is very involved in the two clubs he started at his school, the rocket club and an American Chemical Society high school chemistry club. Ask him about this chemistry club and he will tell you ACS has money to give you to help get started in your district. He has a wealth of information to share so make sure you sign up for each workshop he will offer at the Siena and state conferences next school year.

As I was going through some of my teaching materials a couple of weeks ago, I came across an article on the decomposition of mercury II thiocyanate and realized that I never did the lesson on this compound that I had wanted to. So I am passing it

along and hope some of you will find it as fascinating as I did when I was younger. As a kid, my friends and I use to buy these small boxes of brown pellets labeled Pharaoh's Serpents (or something similar, not sure if that was the exact name). Anyway, you would light one with a match and a brownish "snake" would form along with some smelly gases. It was great and we loved watching those pellets burn. Fortunately you can't buy them any more as they are pretty toxic. But you can find some good videos on YouTube. Google decomposition of mercury II thiocyanate and take a look. It might be an interesting activity for your students to research as I'm sure they have never seen a reaction like this one. Have some fun with it.

One last thing to leave you with, if you are not already a member of the American Chemical Society (ACS) or the National Science Teachers Association (NSTA), I strongly encourage you to join one or both. Each has been a huge resource for me throughout my years of teaching. Some of the best lessons that I have presented over the years to chem teachers at various conferences started with an article from one of the publications that these organizations provide.

Chemistry teachers are the best!!



Intermediate

Jennifer Gecewicz
SAR Intermediate Science,
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Is This All There Is?! Is This As Good As It Gets?!



Have you ever sat through a "professional development" seminar thinking those same two questions? I know I have "experienced" professional development sessions during which those two questions came to mind - all STANYS PD sessions excluded, of course. I tend to be a professional-development junkie. I try to get it as often as possible and in the best quality as possible - hence my involvement with STANYS. Upon reflecting on my own growth as an educator, which I attribute greatly to participating in really good professional development, it dawned on me that as a presenter, I need to know my clientele's needs. I want my session participants to leave my sessions with a feeling of contentment that they learned from my session, rather than a feeling of disappointment that they missed out on the other one they'd considered. I don't want you to leave one of my sessions asking yourself those two questions: "Is this all there is?! Is this as good as it gets?!" Or worse yet - "A faculty meeting would have been a better use of my time!!" (Shudder.) Professional development, if done well, has the ability to make you want to practically run back to your classroom, call your kids in on a *Saturday* to greet them with this awesome idea you can't wait to share with them. You now know my goals as a both a SAR presenter and a participant.

In an effort to reach my goals as a presenter, I would like to put the proverbial ball in your court. What would you, a person seeking professional development in Intermediate Level Science, want to further professionally develop? I invite you to complete a brief [Google Forms survey](#) so that I can determine how to better suit your PD needs. Thank you for joining me on this journey of growth!

Link to Google Form - Survey on ILS PD Needs:

https://drive.google.com/open?id=1YFXk3IHUQnMjEw76SIWxo2b-jM35-M4DGYvHH-DzQ_U



**Networking with
colleagues at our
monthly Pub
Science Series**



Science Olympiad

Ted Simons

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Students from Capital District schools competed in the 2016 Science Olympiad Regionals at the College of St. Rose on Saturday, February 6, 2016. Fifteen different schools fielded a total of twenty three teams to compete in twenty four different science and technology events. In addition to personal glory, medals, and trophies, the teams competed for the opportunity to advance to the State Science Olympiad championships held at Le Moyne College in March.

Events consist of a test, a hands-on lab, or demonstration of a student-built apparatus, specific to the topic of the competition. Events ranged from *Anatomy and Physiology* to *The Wright Stuff*, an event that requires students to build a rubber band powered aircraft.

The event is generously hosted by the College of St. Rose which opens its facilities for the three hundred competitors, their coaches, and supporters. The St. Rose student Natural Science Club provides nearly fifty volunteers to help administer the events throughout the day. Several St. Rose science faculty also donate their time to ensure the event is a success.

Events began at 7:30 AM and continued non-stop through the day. At just past 5 PM, the last of the medals and trophies had been awarded. Teams from Columbia, Niskayuna, and Bethlehem are advancing to the State championships!

Capital District 2016 Science Olympiad Regional Results

Team	Overall Points	Overall Place	Air Trajectory	Anatomy and Physiology	Astronomy	Bridge Building	Cell Biology	Chemistry Lab	Disease Detective	Dynamic Planet	Electric Vehicle	Experimental Design	Forensics	Fossils	Game On	Geologic Mapping	Green Generation	Hydrogeology	Invasive Species	It's About Time	Optics	Protein Modeling	Robot Arm	Wind Power	Wright Stuff	Write It Do It
Columbia White	68	1	4	4	6	1	5	3	3	1	1	1	1	1	4	2	4	8	2	2	7	1	1	3	2	1
Niskayuna Red	81	2	1	1	1	7	2	2	1	2	5	4	2	6	3	4	3	5	7	3	2	3	9	1	5	2
Bethlehem Black	134	3	6	6	2	10	1	6	8	3	8	9	9	3	15	1	1	4	3	1	3	5	4	7	14	5
Voorheesville Gold	143	4	9	3	3	9	4	7	5	6	4	5	3	2	8	7	6	1	12	7	4	7	3	5	10	13
Ballston Spa	147	5	3	5	16	6	6	4	4	8	2	2	4	12	9	5	9	6	4	5	8	4	2	10	1	12
Columbia Blue	197	6	2	2	11	5	10	17	16	7	3	6	5	5	17	8	15	3	1	8	10	6	24	4	9	3
Niskayuna Silver	240	7	5	14	5	17	3	14	11	4	24	7	20	7	1	17	11	7	16	6	6	2	24	2	3	14
Guilderland	244	8	24	16	4	12	13	1	2	15	24	3	13	15	16	3	2	20	6	14	1	14	5	6	7	8
Bethlehem Orange	248	9	8	20	10	2	9	8	10	10	23	10	6	8	2	12	16	13	13	4	24	9	7	12	8	4
Emma Willard A	263	10	7	13	7	14	7	9	9	12	7	8	18	4	10	13	7	11	11	9	13	11	24	8	12	19
Columbia Gold	276	11	10	7	12	3	8	10	14	5	24	13	7	13	5	10	13	14	17	10	5	8	24	14	15	15
Emma Willard B	314	12	11	15	9	18	11	15	7	11	23	12	8	14	6	15	14	2	15	13	12	15	24	11	16	17
Shaker White	361	13	24	9	21	4	12	5	13	17	24	14	15	9	21	23	5	15	14	11	14	24	24	13	6	24
Roxbury	390	14	24	11	24	11	16	22	19	14	6	11	10	11	24	21	19	16	19	12	24	24	6	15	13	18
Ravena-Coeymans-Selkirk	402	15	24	22	13	24	14	19	20	20	24	19	24	16	19	18	17	10	8	15	9	13	10	24	11	9
Voorheesville Purple	421	16	24	12	8	24	20	11	6	21	24	16	12	25	7	6	24	12	5	24	24	24	24	24	24	20
Mohonasen	427	17	12	19	18	8	18	13	24	18	24	15	24	20	12	19	18	24	9	16	24	24	24	9	24	11
Cooperstown Orange	435	18	24	21	17	13	17	20	17	13	24	17	11	18	11	14	10	18	18	24	24	16	24	24	24	16
Maple Hill	438	19	24	10	15	24	24	16	24	16	24	24	14	19	20	16	12	19	20	24	24	10	24	24	4	7
Shaker Blue	449	20	24	8	22	24	24	12	12	24	24	20	19	10	14	11	8	17	21	24	11	24	24	24	24	24
Cooperstown Black	452	21	14	18	19	16	19	18	18	19	24	18	16	21	13	22	20	21	10	24	24	12	24	24	17	21
Galway	478	22	13	24	14	15	24	21	21	22	24	24	17	17	18	20	24	24	24	24	24	24	8	24	18	10
Schalmont	485	23	24	17	20	24	15	24	15	9	24	24	24	25	24	9	24	9	24	24	24	24	24	24	24	6

An exciting new opportunity for you and your students! The Greater Capital Region STEAM Exposition will be held on Saturday, May 21, 2016 from 8 am to 3 pm at Colonie Central High School in Albany, NY.

Do you know of any students who are passionate about science, technology, engineering, the arts, or mathematics? Of course you do! Invite them to showcase their interests at the STEAM Expo. Students will be competing for CASH PRIZES!!! Any Capital Region student in grades 9 through 12 can enter an interdisciplinary project, either as an individual or in a team of up to 4 students. Project categories include: Investigation, Invention & Innovation, Research, and Arts in STEM. To learn more about the STEAM Expo, please visit: <http://www.raiderfest.org/#!steam-expo/c15fh>. The project registration deadline is Friday, April 22, 2016.

Maybe you or someone you know is interested in helping at the STEAM Expo??? We are in need of people to help judge student projects in the morning (from 8:40 am until about Noon). We would like to have judges from many different backgrounds including teachers, college professors, college students (undergrad & graduate), private industry, government and politics, private industry, artists, musicians, etc. The more judges we have, the better! Please send me an email if you are interested.

Also at the STEAM Expo will be a College & STEM Careers Fair. If you know of anyone who is affiliated with a STEM based company, environmental group, and professional association, please send me their name and contact information. We would like to have a number of exhibitors present to talk with students, their families, and the community about STEM career opportunities in the Greater Capital Region.

If you have any questions, don't hesitate to ask! I look forward to working with many of you on this, hopefully annual, event.

Michele C. Famoso
Physics Teacher, STEM Club Advisor,
Greater Capital Region STEAM Exposition Coordinator,
& NYS Master Teacher
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Becky Remis,
Membership Chair and
DAL Earth Science



Christine Stankavich,
SAR - Retirees



Elaine Jetty,
Siena Conference
Assistant

The Schenectady County Historical Society, ECOS,
and the Audubon Society of the Capital Region present:

MIGRATION CELEBRATION

AT MABEE FARM

Live birds!
Nature hikes!
Crafts! Games!
Erie Canal talk!
Demos!
FREE!!

Sunday May 1, 11-3

SCHENECTADY COUNTY HISTORICAL SOCIETY
schenectadyhistorical.org

What is the New York State Master Teacher Program?

Responding to the call to strengthen our nation's K-12 STEM education, Governor Andrew M. Cuomo launched the New York State Master Teacher Program (NYSMTP) in partnership with The State University of New York and Math for America in 2013. The program creates a state-wide network of the highest-performing STEM teachers dedicated to sharing their expertise with peers and attracting high school graduates to careers in STEM. Participating teachers receive \$15,000 stipends annually over four years. Recognizing the strengths of the statewide network of over 600 NYS Master Teachers, Governor Cuomo announced the expansion of the NYSMTP to enable more outstanding secondary school STEM teachers to join in 2016. In addition, three regional programs (Central New York, Long Island, and Western New York) will host a pilot program to extend the Master Teacher Program to successful STEM teachers with training and expertise in working with English-language-learners and special education designated students.

The NYS Master Teacher Program is now accepting applications.

Who is eligible to apply?

Applicants must be:

- Certified & currently employed in a New York State public school, with a minimum of 4 years of experience teaching STEM disciplines.
- Have a current teaching load of at least 60% in STEM disciplines, grades 6-12.
- Have an Annual Professional Performance Review rating of effective or highly-effective.

Individuals that meet the above eligibility requirements and the following pilot program requirements are encouraged to apply for the pilot program hosted in 3 regions:

- Hold an extension certificate in bilingual education, or
- Hold certification in English as a Second Language, or
- Hold a dual certification in a content area and special education.

What do Master Teachers do?

As program participants, Master Teachers make a commitment to engage in professional development (PD) work in addition to their regular school responsibilities. Master Teachers meet regularly (evenings and weekends) to participate in NYSMTP activities that lead to individual and collective professional growth. PD programming opportunities include three-session mini-courses. Recent mini-courses have addressed emerging STEM subjects such as nanoscience and hydro-fracturing. Master Teachers form Professional Learning Teams around topics such as student research projects, expeditionary learning, and the Common Core Learning Standards. Master Teachers participate in leadership workshops to better contribute to departmental discussions and mentor early career and pre-service teachers. Master Teachers also participate in the Empire State STEM Learning Network, partnering with local businesses and agencies to better prepare students for STEM careers.

For more information on the program, and how to apply, visit: www.suny.edu/masterteacher

If you have any questions, please contact Josephine at Josephine.Salvador@suny.edu.

Thank you,

Will Jaacks

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This year Earth Day is Friday April 22nd. Check out the events planned around the Capitol Region that are listed below that are open to the public.

[U Albany: Features Family Earth Day, April 19, for Community-at-Large](#)

<http://www.albany.edu/news/58876.php>

[Earth Day at the Pine Bush: April 16, 2016 - April 16, 2016](#)

<http://www.albany.org/includes/calendar-of-events/Earth-Day-at-the-Pine-Bush/21323/>

[RPI Earth Week Celebration](#)

<https://www.facebook.com/events/1000563329979522/>

[Earth Day Expo and Bicycle Parade - Washington Park, April 17, 2016](#)

<https://www.facebook.com/AlbanyEarthDay/>

Below are links to sites that have a wealth of information about Earth Day, including curriculum, lessons, and activities to use in your classroom.

[History of Earth Day](#)

<http://www.earthday.org/about/the-history-of-earth-day/>

[Earth Day Curriculum Resources, Grades K-5](#)

<http://www.nea.org/tools/lessons/Earth-Day-Curriculum-Resources-Grades-K-5.html>

[NEEF - National Environmental Education Foundation](#)

<https://www.neefusa.org/greening-stem/environmental-education-week>

[Earth Day Crafts and Activities for Kids](#)

<http://www.dltk-kids.com/crafts/earth/index.html>

[Earth Day Lesson Plans](#)

<http://www.educationworld.com/holidays/archives/earthday.shtml>

[Earth Day Activities - Scholastic](#)

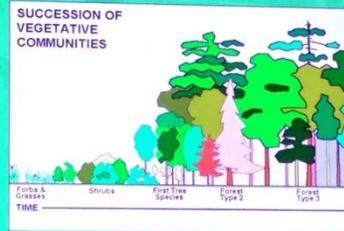
<http://www.scholastic.com/teachers/collection/celebrate-earth-day>





A dying tree is not necessarily a bad thing

- Succession
- Competition
 - Between individuals
 - Between species
- These are both short- and long-term processes



"Invasive Pests and the Fate of Our Forests"
by Jerry Carlson,
DEC Research Scientist,
at Swifty's in Albany.



**Join us for a free, fun-filled afternoon of family activities
(Designed for children age 5 and up)**

April 17, 2016 · 1- 4 PM

University Hall, UAlbany uptown campus, 1400 Washington Avenue

Celebrate Earth Day by learning about the atmosphere, environmental science and sustainability through:

**Fun activities that will show how the atmosphere,
the ocean, the Earth and life interact to form and maintain our environment**

Amazing demonstrations of natural science principles!

Weather balloon launches! Shepherding demonstrations, solar observatory tours!

Parking is free in the Student Gold Lot at State Quad on Sunday!

Parking map at albany.edu/map.

This event is sponsored by the Department of Atmospheric and Environmental Sciences, the Office of Environmental Sustainability, the Division for Research, Atmospheric Science Research Center, New York State Mesonet, University Auxiliary Services, and the Sustainability Graduate Student Organization at the University at Albany.

Deep Dive into the Draft New York State Science Learning Standards Content

This summer, join your elementary colleagues from across the Capital District for a three-day dive into the content, skills and ideas forming the basis for the new draft New York State Science Learning Standards (NYSSLS). The roll-out of new science standards will be a multi-year process. The Capital Region Science Supervisors Association (CASSA) and Capital Region BOCES are pleased to offer a first step in supporting elementary (K-5) teachers in deepening their science content understanding.

This three-day professional event will:

- Introduce new or emphasized content areas in the draft standards.
- Concentrate on the topics of Matter and Its Interactions, Energy (waves, transfer, etc.), and Earth's Place in the Universe.
- Understand the Science and Engineering Practices and Crosscutting Concepts, which are critical to the deepening of conceptual understanding.
- Interact with middle and high school science teachers who will provide professional development and create an understanding of the base knowledge needed in K-5 for continued success in STEM in middle and high school courses.
- Remind participants about the misconceptions students bring with them to the science classroom.
- Alignment to cross-content skills (ELA and math).
- Provide additional resources for further study of each topic.

SAVE THE DATE: July 12-14, 2016 at 8:30 a.m. - 3 p.m.

Locations: Click on the school names below to register.

Ballston HS

<https://www.mylearningplan.com/WebReg/ActivityProfile.asp?D=13606&I=2049518>

(Voorheesville) Clayton A. Bouton HS

<https://www.mylearningplan.com/WebReg/ActivityProfile.asp?D=13606&I=2049508>

Colonie Central HS

<https://www.mylearningplan.com/WebReg/ActivityProfile.asp?D=13606&I=2049513>

Columbia HS

<https://www.mylearningplan.com/WebReg/ActivityProfile.asp?D=13606&I=2049515>

Niskayuna HS

<https://www.mylearningplan.com/WebReg/ActivityProfile.asp?D=13606&I=2042818>

Facilitators:

Middle/High School Science Teachers in Collaboration with CASSA & Capital Region BOCES

Laura Lehtonen, Managing Program Coordinator Educational Support Services

Phone: [\(518\) 464-3999](tel:5184643999) laura.lehtonen@neric.org