



EnviroEd

Fall 2011

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www.nywea.org.



Message From The Chair - Joe Corrado

Welcome to the fall 2011 edition of the NYWEA Public Outreach Committee EnviroEd Newsletter. I hope that everyone had a safe and relaxing summer and that Hurricane Irene who

recently decided to visit the Northeast did not cause too much damage to your area.

Continuing along with our objective of engaging teachers, and educating young people about the environment, in June approximately 25 students from the Glens Fall Middle School attended the Joint NYWEA/NEWEA Spring Meeting at the Sagamore Hotel and Conference Center in Lake George, New York. The students had a great day filled with fun and learning while performed water quality testing on Lake George as part of World Water Monitoring Day. Photographs of the event are presented on page 5 of this Newsletter.

If you and your students are interested in learning more about failing infrastructure, water quality or the environment, please contact us about attending a special session of the 84th Annual NYWEA Winter Meeting and Exhibition at the Marriot Marquis in New York City. Additional information can be found at www.nywea.org.

We hope you enjoy this edition of our newsletter and that you have a happy and healthy holiday season. If you have any questions, comments or interesting ideas for future newsletters, please e-mail either myself at joseph.corrado@arcadis-us.com or Ms. Beth Petrillo at bpetrillo@dep.nyc.gov.

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Spotlight on Schools



Brooklyn School Raises Trout

—as reported in the Brooklyn Daily Eagle

Sixth graders from Brooklyn's Poly Prep Country Day School took part in a program to raise trout from eggs to fingerlings. The project was a component of a much larger water quality testing initiative for NYC's water supply meant to communicate between upstate and the Brooklyn students. The program was sponsored by the NYC Department of Environmental Protection and the New York State Department of Environmental Conservation. Trout were used in the program because they are considered an indicator species — highly sensitive to changes in the water. As a result, the students were routinely testing the water quality because the trout are highly sensitive to dissolved chlorine and other dissolved chemicals. On release day, students measured the velocity, turbidity rate, water temperature and water chemistry of the stream into which they released their fingerlings.

“Amazing Race”–Style Tournament Engages Students from 5 Districts

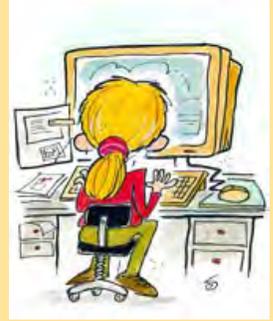
— as reported in the Pittsburgh Post Gazette

Held every other year in North Park, Pennsylvania, the event is the culmination of brainstorming by math teachers from school districts in Pittsburgh's northern suburbs who meet monthly to exchange thoughts and ideas through The Allegheny Math Partnership.

The competition called for students in teams of four to solve timed mathematical equations, moving from pavilion to pavilion. Topics included problem solving and working with linear and quadratic equations in algebra, geometry and other disciplines. Using questions designed by partnership teachers throughout the year, the event lets students engage in meaningful and fun mathematical investigations in a competitive format that also gets everyone out of the confines of school for the morning.

Tangible rewards for the winners consisted of Best Buy gift cards for each member of the first and second place teams. This year, the teachers also added a “spirit award” to the team that displayed the most enthusiasm and creativity in team attire.

Websites of Interest



explore the many ways that engineering and technology can help teachers meet the challenge of making mathematics and science come alive for students.

- www.nywea.org – This is the Metropolitan chapter website of the New York Water Environment Association.
- www.dec.ny.gov – The New York State Department of Environmental Conservation has launched a new electronic newsletter for families. It is called DEC Outdoor Discovery. Each issue introduces subscribers to a seasonal environmental or nature topic, suggests a related activity, and lists family-friendly events at DEC’s environmental education center. To subscribe, go to the website above and click on DEC Outdoor Discovery.
- www.nyc.gov/dep -- New York City Environmental Protection website.
- www.epa.gov/teachers -This is EPA’s newly revised and improved environmental education website for teachers. One new feature is the addition of grade levels for the cited classroom materials.
- <http://www.epa.gov/fishadvisories/kids> - EPA website for kids.
- www.teachengineering.com -Teach Engineering is a multi-university partnership that has developed K-12 engineering education curriculum modules that are standards-based, free and available over the internet. It aims to equip teachers with lessons in science, math and engineering that are creative and exciting.
- <http://science.nsta.org> - National Science Teachers Association newsletter. Each issue is filled with informative articles.
- <http://www.wef.org/LearnAboutWater/ForEducators/CurriculumMaterials/>. - The Water Environment Federation has many children’s publications including Water the Amazing Journey “Go With The Flow, and World-wide Waste, It’s not a Load of Rubbish.
- www.engineeringk12.org - Go Engineering’s e-newsletter is for K-12 educators. Its purpose is to promote the importance of engineering and technology education and

- www.pbs.org/journeytoplanetearth - Funded by the National Science Foundation, Journey To Planet Earth is a video series that helps students and adults understand the most critical and timely issues facing the natural sciences.
- www.epa.gov/watersense/water/drop.htm - The Water Sense program announces an exciting new set of educational materials for kids and teachers “A Day in the Life of a Drop” teaches students about the connections between the sources of the water they use and how that use affects human health and the environment. These fun learning materials include a teachers guide, two student worksheets, a spreadsheet to track water use at home, and a pledge for students and their families to filter out bad water habits.
- <http://greeneducationfoundation.org> - The Green Education Foundation, in partnership with the Center for Green Schools, provides K-12 green-themed lesson plans and activities to share with educators around the world.
- <http://urbanext.illinois.edu/schoolonline> - This website offers curricula and teaching ideas from educators at the University of Illinois Extension. Students in grades K-6 can explore topics including weather, hydrology, food origins through interactive games and activities.
- <http://www.seametrics.com/drinking-water-guide> - has some really great information including some startling water facts and resources.

Attn: Parents of High School Seniors

Did you know that NYWEA has a Child of Member Scholarship? Do you have a son or daughter following in your environmental footsteps? If so, you may want to encourage them to submit a scholarship application in the Child of Member category. For more information visit the NYWEA website, www.nywea.org.

Job Opportunity

Youth in the Great Outdoors

Youth in the Great Outdoors is an initiative of the U.S. Department of the Interior designed to employ, educate and engage young people from all backgrounds in exploring, connecting with and preserving America’s natural and cultural heritage. For more information go to <http://youthgo.gov>.

Competitions and Scholarships

2011 Competitions

America's Home Energy Challenge

Submission deadline December 31, 2011

This challenge is designed to teach students in grades 3-8 about energy, its use and the link between saving money and energy. For more information go to <http://challenge.gov/Doe/178-america-2-home-energy-education-challenge>.

Earth Science Week Contests

Entry deadline October 14, 2011

The Earth Science Week 2011 contests include a photography contest, visual arts contest and an essay contest. To enter go to <http://www.earthsciweek.org/contests>.

Lexus Eco Challenge

Submission deadline October 31, 2011

The Lexus Eco Challenge offers an opportunity for students in grades 6-12 to address environmental issues in three challenges: Land/Water, Air/Climate, and a Final Challenge. For more information, go to www.scholastic.com/lexus.

2012 Scholarships

NYWEA Offers Over \$27,000 in Scholarships!

The New York Water Environment Association will be offering a total of six (6) \$1,500 scholarships and one (1) \$10,000 scholarship in 2012.

\$10,000 Environmental Career Scholarship

To be eligible for the \$10,000 scholarship (paid out over four years), the recipient must be:



Patricia Cerro-Reehil makes a presentation to this year's major scholarship winner, Brian Ward from Fayetteville-Manlius High School. Principal Raymond Kilmer is at right.

- A qualifying high school senior
- A New York State resident
- Enrolled full-time in a B.S. or B.E. degree program with an environmental emphasis.

Application deadline: January 21, 2012

\$1,500 Scholarship Application Package

The six \$1,500 scholarships are awarded as follows:

- Two(2) are granted to children of members
- Two (2) are granted to students enrolled at a college or university where there is a NYWEA student chapter, and
- Two (2) are granted to high school students who will be enrolled in an environmentally related program in a four year college or university.

Application deadline: January 21, 2012

2012 N.G. Kaul Memorial Scholarship

The N.G. Kaul Memorial Scholarship Fund offered through NYWEA for a total of \$2,500 in scholarships

is available to students pursuing graduate or doctoral degrees in environmental/civil engineering or environmental science concentrating on water quality who show a commitment to government service.

Application deadline: February 29, 2012

Jim Anderson Memorial Scholarship

The Jim Anderson Memorial Scholarship offered through NYWEA consists of one \$1,250 scholarship annually. Applicants must be enrolled in a BS or BE full-time engineering program with a focus on environmental issues, particularly water/wastewater.

Application deadline: May 1, 2012

Lucy Grassano Memorial Scholarship

The \$500 scholarship is presented periodically to be utilized to further the careers of secretaries, administrative assistants, and operators in the water quality field.

Application deadline: December 15, 2011

A 'Thank You' from Staten Island

Excerpted from a Letter from Mary Lee, Teacher at the St. Clare School in Staten Island:

Thank you for the wonderful learning opportunity — the eighth graders from my Advanced Environmental team really had a blast at the NYWEA Conference. We appreciate that NYWEA allowed us to attend and were so accommodating.

Your event had quite an impact on the children. For starters, my Advanced Environmental team put on an amazing showcase at the end of the year for their classmates and then for their parents. We focused mainly on your event and what we learned about water there. The kids created storybooks, websites, songs, great video and more. There were some fun live acts too — you can see some of them on the Team Projects on this site: <https://sites.google.com/a/stclaresi.com/advanced-environmental-2011/>

Several of the team members went on to enter the Siemens **We Can Change the World Challenge** and focused on topics related to water. In fact, they gathered much of their research and ideas at your event. One team, called Algae Eaters, received an honorable mention in this prestigious national contest. Their main focus was helping remediate algae problems at a local pond by warning residents about fertilizers, holding cleanups and more.

The other team, called Sewer Mouths, wanted to keep storm sewers clean and create a new type of sewer cap, but then realized a better solution would be alerting the public and educating students about the



These students from St. Clare Middle School attended the NYWEA 83rd Annual Meeting

harm water pollution can cause. The children submitted their data and action summaries to Siemens. They also presented their ideas at a public forum at our school on Science Night.

At the link below, look at Team Attachments (shows their power points - summarizes their work) and Team Websites. Also look at the Siemens contest website link provided for background on this contest. All our Siemens projects are at: <https://sites.google.com/a/stclaresi.com/siemens-we-can-change-the-world-challenge-2011/>

Perhaps even more impressive, some of my students are actually considering careers in this field now because of the trip. They saw how many types of jobs exist too. There was something for everyone!

This year, my seventh grade STEM class is focusing on water (we will be monitoring the ice sheets on polar ice caps, looking at Hudson River water data, and more.. We will look at Staten Island in particular and I will challenge them to devise ways to improve water quality and systems. It may be a two-year project in all. I am still fine tuning the plan. I am teaching my curriculum through the project (Project-based learning). Water seems like the best way to connect the lessons because it is integral to everything on our planet.

If there is another event in our area this year or in the future, please keep us in mind. You are also welcome to visit us if you are ever in Staten Island. My best wishes!

Mary Lee

St. Clare School, Staten Island, NY



These students from the High School for Green Careers attended the NYWEA 83rd Annual Meeting.

Teacher Workshops In Environmental Education

The NYSDEC will be offering free workshops for science educators using national environmental education programs. The hands-on workshop activities and lessons:

- correlate to NYS Science Learning Standards
- provide teachers with a free curriculum guide and tools to strengthen critical thinking, team building & problem solving skills
- are a valuable resource to augment an existing science curriculum with hands-on activities and games
- can count toward teacher in-service credits

Flying WILD

- Monday, October 10, 2011
from 10:30 AM – 2:30 PM

This exciting workshop introduces middle school students to bird conservation through standards-based classroom activities and environmental stewardship projects; also helps students understand the importance of migratory birds and their conservation. (www.flyingwild.org)

Project Learning Tree

- Saturday, November 12, 2011
from 9:30 AM – 4:00 PM

An award-winning curriculum using the forest as a “window” for students in grades pre-K - 8; focuses on practical, familiar examples of trees, plants and household products to paint a broader picture of environmental issues (www.plt.org)

Exploring Environmental Issues: Places We Live

- Wednesday, November 16, 2011
from 4:30 - 7:30 PM

All communities are experiencing growth and change, which impact their environment. This workshop provides secondary educators with a useful tool for place-based education to help create a bond between students in grades 9-12 and their communities. (www.plt.org) (limited to 17 participants)

World Water Monitoring Day Student Event



Students from Glens Falls Middle School attended the Joint NYWEA/NEWEA Spring Meeting at the Sagamore Hotel and Conference Center in Lake George, New York. As part of World Water Monitoring Day, the students performed water quality testing on Lake George — a great day filled with fun and learning!

Registration Required: Contact the NYSDEC at 631-444-0347 or education1@gw.dec.state.ny.us

Workshops will be held for a minimum of 15 and maximum of 30 participants

Location: NYS DEC Region 1 Headquarters
50 Circle Rd, Stony Brook, NY 11790



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Non-profit Org.
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Permit No 260

BECOME A PART OF HISTORY!

Participate in World Water Monitoring Day -
Happening now through December 31st.
To get a test kit contact WEF.org.
Register • Prepare • Monitor • Report!

Upcoming Events - Mark your Calendar!

- ➔ World Water Monitoring Day
– select your day from now
through December 31st!
- ➔ New York Outdoor Education
Associations' Annual
Conference – Partnering
and Planning for an
Environmentally Literate NY
- October 20-23, 2011, Villa
Roma Resort, Callicoon, NY
(Sullivan County) Go to <http://nysoea.org>
- ➔ February 5-8, 2012 - NYWEA
84th Annual Winter Meeting
at the Marriott Marquis in New
York City
- ➔ June 4-6, 2012 - Hyatt
Downtown Buffalo, NY -
NYWEA Spring Technical
Conference - Perhaps
your school would like to
participate!

New York City Outdoors!
An Environmental Education Expo

Please RSVP to
karthens.oliver@nyu.edu
or call 212-992-9362

Wednesday, October 5th, 2011
The Kimmel Center, NYU
4:30 pm to 7:00 pm

**Free Refreshments!
Peer Networking and
Socializing!**
For teachers, informal educators
and students throughout the city.

**Learn about in-class
programs and field
trips!**
Composting
Growing oysters
Overnight field trips
Fishing and seining
Gardening
Using the City's parks as a classroom
Harvesting solar power
Citizen science programs

Celebrating our 10th Anniversary!