

# Science News



Volume 1, Issue 9

April 2008

## CALENDAR OF EVENTS



SAVE THE DATES:

Core Curriculum Ordering  
April 7th - May 2nd, 2008

Planning Guide/Pacing Calendar  
Unit 4 begins around April 10th

31st Annual SCONYC Conference  
Saturday, April 12th, 2008  
Stuyvesant High School

Administration of the 4th and 8th Grade  
NYS Science Performance Test  
April 2nd - May 7th, 2008



Earth Day  
(Don't Forget to Wear Your Green)  
April 22nd, 2008

New York State Science Written Test-  
Grades 4 and 8 - April 30th, 2008

The World Science Festival  
May 29th, 30th, 31st, 2008

The New York Waterfalls Project  
Summer/Fall 2008

## The Department of Mathematics and Science



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## Vote for the New Name of the Newsletter

We had 30 entries for the new name of  
the Science Newsletter. Vote and be part  
of the process in choosing the new name.  
Click on the link and you can cast your  
vote!!



**Click here to vote:**

[http://www.surveymonkey.com/s.aspx?sm=GKonz3mViJ4q1UgdkT4OSA\\_3d\\_3d](http://www.surveymonkey.com/s.aspx?sm=GKonz3mViJ4q1UgdkT4OSA_3d_3d)

If you would like to be placed on the science distribution  
list, please e-mail Roy Harris at  
[RHarris2@schools.nyc.gov](mailto:RHarris2@schools.nyc.gov)

**Core Curriculum Update**  
*Over 1300 people attended the Core Curriculum  
Showcase. The Core Curriculum ordering begins  
on April 7th and ends on May 2nd. To order,  
schools should go to the FAMIS portal and click  
on "Core Curriculum" under the Purchasing  
menu. Don't forget to order your material refill  
kits, science composition books (notebooks) and  
the FOSS Student Science Notebook copies.  
If you need any assistance you can call the Core  
Curriculum Help Desk at (718) 935-3334.*

## Plant A Tree for Arbor Day

Teachers and students have a special incentive to plant trees this Arbor Day. With the kick-off of the Million Trees Initiative, it will take all of us to reach that lofty goal. Trees in schoolyards will be especially appropriate.



Free trees can be ordered through the Arbor Day/John Bowne HS Nursery Project. Students at Bowne tend up to 1,000 trees in a small nursery on their Land Lab campus. Several hundred will be made available this spring for planting on Arbor Day, May 2nd. All trees will be delivered to schools by the NYC Parks Department.

To receive a brochure containing the names of the trees, their descriptions, and an order form, contact Nancy A. Wolf, Project Coordinator, at (718) 834-4589 or e-mail her at [jlwolfinc@aol.com](mailto:jlwolfinc@aol.com). The brochure will contain instructions for planting and care.

**Tree orders will be due on April 15, 2008.**

**Check out the following website for more information and materials on Arbor Day:**

<http://www.arborday.org/arborday/classroom.cfm>

## Change in State Science Accountability Policy Elementary and Middle Schools

### From Principal's Weekly:

This year, for the first time, your students' 8<sup>th</sup> grade science Regents scores will be included in your school's performance index for the purposes of state and NCLB accountability. In the past, students taking the Regents exam instead of the regular 8<sup>th</sup> grade science test were counted only in a school's participation rate and not included in the school's performance index. This year, if a student takes only the science Regents, his or her results will be included in the school's performance index as follows: 85-100 corresponds to Level 4; 65-84 corresponds to Level 3; 55-64 corresponds to Level 2; and 0-54 Level 1. If a student takes both the 8<sup>th</sup> grade science test and a science Regents, only the 8<sup>th</sup> grade science test will count towards the school's accountability requirements. Please consider the implications of this new policy in your testing decisions this year.

For more information, please review the State Education Department's SIRS users manual at [www.emsc.nysed.gov/irts/SIRS/home.shtml](http://www.emsc.nysed.gov/irts/SIRS/home.shtml). You can also call the DOE's nySTART support hotline at (212) 374-5765 and ask for your district's senior accountability and data support specialist.

## Countdown to 2009 - The Year of Science

The Coalition on the Public Understanding of Science (COPUS) is preparing to shine the national spotlight on science in 2009 and beyond. 2009 was selected as the Year of Science because it coincides with the anniversary of a number of important events in the history of science, including the 150th anniversary of the publication of "On the Origin of Species;" the 200th anniversary of the birth of its author, Charles Darwin; the 200th anniversary of the birth of Abraham Lincoln, founder of the National Academy of Sciences; the 400th anniversary of the publication of Johannes Kepler's first two "Laws of Planetary Motion;" and the 400th anniversary of Galileo's first use of a telescope to study the skies. For more information about the Year of Science 2009, visit

<http://www.yearofscience2009.org/>.

## Take a Girl to College Day



Take a Girl to College Day, will take place at Columbia University on April 23rd, 2008, for girls in grades 8-10. Web registration for the event is now open - the girls can sign up online at: [www.columbia.edu/cu/wisc](http://www.columbia.edu/cu/wisc) - by following the links for Take a Girl to College Day.

If you have any questions, please feel free to contact Mindy Levine at [mindy.levine@gmail.com](mailto:mindy.levine@gmail.com)

# EET Data Analysis Workshop, Using GLOBE Data to Study the Earth System

Join us on April 16 for the EET Data Analysis Workshop, "Using GLOBE Data to Study the Earth System!" During the workshop, we will ask you to complete an online survey. We will also ask you to implement what you have learned with your students and participate in a follow-up call sharing the results of your implementation. You will be paid \$120 after your classroom implementation and participation in both workshops.



Science, math, and technology teachers of grades 6 to 12 are invited to join this four-hour, two-part, teleconference-online workshop series! In the first workshop, the EET Data Analysis Workshop, walk through an Earth Exploration Toolbook (EET) chapter and discuss ways to use Earth science datasets and tools with your students. In a follow-up second workshop, the EET

Implementation Workshop, share how you used these materials in the classroom by describing the projects and activities that you carried out with your students. To take part in this opportunity, you need an Internet-connected computer and the ability to talk on the telephone at the same time.

Dial in to a toll-free teleconference number and work with colleagues from across the nation.

To find out more and to sign up for the workshop, go to: <http://serc.carleton.edu/eet/workshops.html>



Annual SCONYC Conference  
**SCONYC**  
Science Council of New York City



Metro NYC science educators K-12 are invited to attend this all-day conference at Stuyvesant High School at Chambers and West Streets in lower Manhattan on Saturday, April 12, 2008. The conference includes four workshop sessions, a general session with keynote speaker, exhibition of science textbooks and materials and a buffet luncheon. It will be a compact but comprehensive day of quality professional development.

You will receive a certificate of participation to present to your principal in order to receive professional development credit. Find conference information and registration forms at <http://www.sconyc-ny.org>. This is a terrific resource for all teachers of science.

For information about the conference and registration go to: [www.sconyc-ny.org](http://www.sconyc-ny.org).

## Advancing Biology Education through Online Professional Development: A New York State Research Study-High School

ABE-NY is a study of online professional development the intent of which is to examine what teachers learn from taking the online professional development course, as well as whether it impacts student learning. The target audience is 9<sup>th</sup> and 10<sup>th</sup> grade biology teachers whose students will be eligible to take the Living Environment Regents Examination. For more information and to register for the study, teachers can complete the Pre-Registration Form on the ABE-NY website: <http://teacherline.nylearns.org/ABENY.asp>. To ensure their participation, teachers should register by April 15<sup>th</sup>, 2008. Once teachers register, they will need to complete a Teacher Consent Form and obtain approval from their school principal or other appropriate supervisor. Copies of both of these forms are attached for your review. There is a stipend for participation.

# Summer 2008 Teachers' Materials Science and Engineering Camp at Princeton University

Princeton University, NJ and ASM International (The Materials Information Society) are planning a week-long, hands-on laboratory experience to show teachers how to use materials science and engineering concepts in their classrooms. The program will run August 4-8, 2008.

Participating teachers will get a comprehensive series of low-or no-cost laboratory demonstrations in materials science to use in chemistry, technology, industrial arts, physics, and math classes.

We are seeking 30 high school science and technology teachers within commuting distance of Princeton, New Jersey, to participate in the program. We encourage science and technology teams from the same school to apply.

The course will include guest lectures and lab training by Princeton Professors and tours of Princeton University labs and local industries. August 4-8, 2008: Princeton University, Princeton, NJ. This is a full day (8:30 AM to 5:00 PM) 5-day long workshop.

Deadline for Applications: April 16, 2008 (or until openings are filled)

For more information and to apply, see: <http://www.princeton.edu/~pccm/outreach/mini-campteachers.htm> or contact Daniel Steinberg, Education Outreach Director, Princeton University Center for Complex Materials at (609) 258-5598, [dsteinbe@princeton.edu](mailto:dsteinbe@princeton.edu)

## Scramble Corner

T R L E N A F R A   N S W T I

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I D F O F S N U I

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O R H M O O S E C M

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H E E W L   D N A   X E L A

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*Last Month's Answers*  
*Decibel*  
*Mitochondria*  
*Pole*

## Rachel Carson Sense of Wonder Contest 2008

The EPA, Generations United, and the Rachel Carson Council, Inc., announce a contest for poetry, essay, and photography "that best expresses the Sense of Wonder that you feel for the sea, the night sky, forests, birds, wildlife, and all that is beautiful to your eyes." Share this love of nature with a child and others around you. When we teach our eyes and ears and senses to focus on the wonders of nature, we open ourselves to the wonders around us. Entries are due by June 16, 2008

<http://www.epa.gov/aging/resources/thesenseofwonder/index.htm>

## NSTA in Boston

New York City science educators attended the National Science Teachers Conference in Boston, MA, this past week. Despite the cold weather, we participated in an NSTA conference that was jam-packed with innovative presentations and we experienced hands-on workshops that represented the latest in content and pedagogy. These workshops enhanced and expanded our professional growth; while at the same time helped us refresh our spirit. In addition, many of us took advantage of the unique opportunity to collaborate with science education leaders and peers who attended from various cities throughout the United States.

## April Birthday Corner



### Sir Joseph Lister, April 5, 1827



Sir Joseph Lister, Baronet British surgeon and medical scientist who was the founder of antiseptic medicine and a pioneer in preventive medicine. While his method, based on the use of antiseptics, is no longer employed, his principle—that bacteria must never gain entry to an operation wound—remains the basis of surgery to this day.

### James D. Watson, April 6, 1928



James Dewey Watson is an American molecular biologist, best known as one of the co-discoverers of the structure of DNA. Watson, Francis Crick, and Maurice Wilkins were awarded the 1962 Nobel Prize in Physiology or Medicine “for their discoveries concerning the molecular structure of nucleic acids and its significance for information transfer in living material.”

### Melvin Calvin, April 8, 1911



**Melvin Ellis Calvin** was a American chemist most famed for discovering the Calvin, or Calvin-Benson-Bassham cycle along with Andrew Benson and James Bassham, for which he was awarded the 1961 Nobel Prize in Chemistry. He spent most of his five-decade career at the University of California, Berkeley.

### Joseph Black, April 16, 1728



**Joseph Black** was a Scottish physicist and chemist, known for his discoveries of latent heat, specific heat, and carbon dioxide. He was a founder of thermochemistry who developed many pre-thermodynamics concepts, such as heat capacity, and was the mentor for James Watt. The chemistry buildings at both the University of Edinburgh and the University of Glasgow are named after him.

## Interesting Science Facts

- \* The average American will eat a half-ton of cheese in his/her lifetime, the main source of which will come from pizza. In America there are 4.2 billion pizza purchases made every year, which equates to 11.5 million purchases every day, half of which are on Friday and Saturday.
- \* Fleas can jump 130 times higher than their own height. In human terms this is equal to a 6ft. person jumping 780 ft. into the air
- \* The world's largest amphibian is the giant salamander. It can grow up to 5 ft. in length.
- \* The most dangerous animal in the world is the common housefly. Because of their habits of visiting animal waste, they transmit more diseases than any other animal.
- \* The earliest cockroach fossils are about 280 million years old.
- \* The average person has 100,000 hairs on his/her head. Each hair grows about 5 inches (12.7 cm) every year.
- \* Each domestic cow emits about 105 pounds of methane a year.
- \* The female lion is a much more efficient hunter than the male.



New teachers who would like to be considered for the NSTA New Science Teacher Academy can apply for the 2008–2009 annual term. Cofounded by the Amgen Foundation, the NSTA New Science Teacher Academy is a fellowship program created to help promote quality science teaching, enhance teacher confidence and classroom excellence, and improve teacher content knowledge. Science teachers located throughout the country who will be entering their second or third year of teaching and whose schedule is a minimum of 51 percent middle or high school science can apply to become an NSTA Fellow. For more information about the NSTA New Science Teacher Academy or to learn how to apply to become a fellow, please visit [www.nsta.org/academy](http://www.nsta.org/academy). Applications must be submitted no later than **May 23, 2008**, to be considered.

## Thinkfinity

**Thinkfinity.org** <http://www.thinkfinity.org/> is the cornerstone of Verizon Foundation’s Literacy, Education and Technology initiatives. The goal is to improve student achievement in traditional classroom settings and beyond by providing high-quality content and extensive professional development training. Thinkfinity.org currently provides more than 55,000 free educational and literacy resources, including K-12 lesson plans and interactive materials, to teachers, parents, and students.

## The Global Sun Temperature Project



This project runs from April 7th to June 13th.

The Global Sun Temperature Project is an Internet-based multidisciplinary project which will enrich a student’s learning experience through “Unique and Compelling” applications of instructional technology. In particular, this project taps into some of the exciting applications of the Internet in education by having students collaborate in large numbers across great distances to determine how proximity to the equator affects average daily temperature and hours of sunlight. They will submit their results to the project web site and the results will be posted in a database for all participants to examine. Then, students will analyze the data to determine which factor has the greatest correlation to temperature and sunlight. During the project, students can discuss their questions, findings, and theories with other participants. Students’ final reports will be posted on the project web site. Please see the project web site listed below for more details.

Feel free to look through all the FREE online projects offered through Stevens Institute of Technology’s Center for Innovation in Engineering and Science Education (CIESE) at <http://www.stevens.edu/ciese/currichome.html>.

PROJECT WEB SITE: <http://www.stevens.edu/ciese/curriculum/tempproj3/en/index.shtml>



## A collaboration of the New York City Department of Education and Dolan DNA Learning Center, Cold Spring Harbor Laboratory

The Dolan DNA Learning Center (DNALC) announces the opening of Harlem DNA Lab at John S. Roberts Educational Complex (JHS 45) at 1<sup>st</sup> Avenue and 120<sup>th</sup> Street. Developed in close cooperation with the Department of Education, the facility provides teacher professional development and student enrichment in genetics and biotechnology. Harlem DNA Lab draws on the DNALC's long experience in translating current biological research into hands-on learning activities. The DNALC is the world's first science center devoted entirely to genetics education and is an operating unit of Cold Spring Harbor Laboratory (CSHL), a world-renowned research institution that has been home to five Nobel Prize winners.

The state-of-the-art laboratory is equipped with modern DNA analysis equipment – from micropipettes to DNA chip analyzers. Harlem DNA Lab is directly administered by the DNALC and is staffed by educators and Ph.D. biologists who have been trained to deliver an exceptional experience for every visitor. All lab activities embody key concepts and process skills of the New York City Scope and Sequence for Science, NY State Science *Core Curriculum* and National Science Education Standards, and complement Living Environment and Advanced Placement Biology coursework.

**Student Lab Field Trips** High Schools throughout New York City are invited to reserve the Harlem DNA Lab for half-day lab field trips inspired by current research techniques and tools. Biotechnology experiments on DNA restriction analysis and bacterial transformation, which are required for AP biology, introduce key methods for manipulating DNA and transferring genes between living organisms. Experiments on Human DNA Variations allow students to safely prepare a sample of their own DNA and use polymerase chain reaction (PCR) to analyze different regions of their own DNA. These experiments employ micro fluidic DNA separation and DNA sequencing techniques used in modern forensic profiling.

**Teacher Professional Development** With funding from the Howard Hughes Medical Institute (HHMI), DNALC staff will train 820 New York City science faculty over five years. The program will provide 8-12<sup>th</sup> grade teachers in-depth experience with six labs that “target” key topics in genetics and biotechnology: Mendelian genetics, mutations and variability, DNA transformation and protein isolation, DNA structure and isolation, DNA analysis and forensics, and PCR and human variations. Training will provide conceptual context and connections to New-York based science research, lab planning and preparation, and classroom implementation. An online *Lab Center* accompanies each lab with pre- and post-lab activities, video interviews and animations, and a teacher portal to share lab write-ups and teaching tips.

Find out more about Harlem DNA Lab:

- Visit the Internet site, [www.dnalc.org/harlemdnalab/](http://www.dnalc.org/harlemdnalab/).
- Attend an Open House, 3:00-5:00 pm, April 15<sup>th</sup>, with refreshments and Patsy's Pizza RSVP to (516) 367-5170.
- Tune into *Learning Curve*, WLIW Channel 21, 7:30 pm, April 30<sup>th</sup>.



### DYNAMIC GENE

The “New” Harlem Dolan DNA Lab will be presenting a FREE two-day workshop on May 8<sup>th</sup> – 9<sup>th</sup>, 2008. This workshop will introduce you to an integrated resource to bring meaningful bioinformatics instruction into your classroom. The workshop is based on the *Dynamic Gene* ([dynamicgene.dnalc.org](http://dynamicgene.dnalc.org)) a new internet site that explains modern concepts of gene analysis and provided doable projects. To register for this workshop, please go to:

<http://www.dnalc.org>

# 2008 Toyota International Teacher Program to the Galapagos Islands

News from Toyota Motor Sales, U.S.A., Inc. The application for the 2008 Toyota International Teacher Program to the Galapagos Islands is now online and will be due May 9th, 2008. Also, the range of eligibility has been extended. Starting with this program, all teachers from grades 6 – 12 and full time library media specialists are eligible for the Toyota International Teacher Programs! The Toyota program alumni who have not participated in a program for 5 years may apply again! If you are eligible, we highly encourage you to apply. Please share information about the Toyota International Teacher Programs with your colleagues. Please encourage your colleagues to visit the website [www.iie.org/toyota](http://www.iie.org/toyota) for instructions and to apply online.

[http://schools.nycenet.edu/offices/teachlearn/science/rh/TITP\\_Galapagos\\_2008.pdf](http://schools.nycenet.edu/offices/teachlearn/science/rh/TITP_Galapagos_2008.pdf)

## Wildflowers of New York City

NYC Wildflower Week will be hosting a lecture on May 2nd, 2008 at NYU Kimmel Center, Room #406 (corner of West 4th Street and LaGuardia) at 4:30 PM – 6:30 PM. The Wallerstein Collaborative for Urban Environmental Education is involved in several “green” initiatives this spring to educate the public about the importance of native plants in New York City. To kick off the inaugural NYC Wildflower Week, the Collaborative will host a lecture featuring Marielle Anzelone, the event’s founder and chair.



Her talk will take you on a tour of New York City’s floristic heritage. Discover the City’s 25,000 green acres—filled with majestic trees, wildflowers, grasses and ferns—the wild, unplanted thread in the Big Apple’s ecological fabric. Native plants are an integral part of our ecosystems, having evolved relationships with local insects, fungi, birds, and other critters. Learn what makes a plant native and why local flora is important. Explore how life in the five boroughs means it’s not easy being green - characteristics of urban forests and threats to indigenous flora. There will be discussions of what you can do, including how to go native in the garden.

Learn more: [www.drosera-x.com](http://www.drosera-x.com) and [www.nycwildflowerweek.org](http://www.nycwildflowerweek.org).

Space is limited. To RSVP for this event please email [kathleen.oliver@nyu.edu](mailto:kathleen.oliver@nyu.edu) or call (212) 992-9362.

AMERICAN MUSEUM OF NATURAL HISTORY 

## Make Our Lab Your Classroom

Click on the link below for a flyer regarding a special opportunity for you and your students to use the Sackler Educational Laboratory for Comparative Genomics and Human Origins in the Hall of Human Origins of the American Museum of Natural History for free.

[http://schools.nycenet.edu/offices/teachlearn/science/rh/Spitzer\\_Hall\\_of\\_Human\\_Origins.pdf](http://schools.nycenet.edu/offices/teachlearn/science/rh/Spitzer_Hall_of_Human_Origins.pdf)

# The Institute for Engineering Research and Learning, *INSPIRE* at Purdue University is now accepting applications for 2008 *INSPIRE* Summer Academy (Grades 2 - 5)

Are you interested in learning how to develop innovative methods for integrating engineering thinking into your classroom? **July 27 – August 1, 2008**

The 2008 *INSPIRE* Summer Academy is a week long program for 2<sup>nd</sup> - 5<sup>th</sup> grade educator teams. The educator teams must be comprised of a minimum of six educators from as many as three buildings in the same school district/corporation. The teams can be created from across disciplines (e.g. math, science, technology, and language arts), and can include administrators as well as teachers.

At the end of the Summer Academy, teachers will be able to:

- Convey a broad perspective of the nature and practice of engineering
- Communicate the difference and similarities between engineering and science thinking
- Discuss with students what engineers do and how they solve problems
- Use engineering problem-solving process such as design and model development to engage students in realistic open-ended problem solving

In addition, each participating educator will receive a **\$750 stipend** and the opportunity to obtain 3 graduate credit hours. Summer Academy participants traveling outside a 50-mile radius from Purdue University's West Lafayette, Indiana campus will receive an on-campus housing/food allowance and a travel stipend of up to \$400.

Download the application at: <https://engineering.purdue.edu/INSPIRE>

**Application deadline is May 1<sup>st</sup>, 2008**

For more information contact Dan Somerville, [dsomervi@purdue.edu](mailto:dsomervi@purdue.edu)

Take the  
*Teacher Challenge!*

Con Edison Teacher Challenge



Con Edison, along with the Center for Science Teaching and Learning, is excited to present the Con Edison Teacher Challenge. It is a great way for educators who teach about energy to demonstrate their knowledge, share with their colleagues, and win great prizes. The challenge is open to all K–12 educators, including preservice, from Manhattan's East Harlem (north of 96<sup>th</sup> Street, east of Fifth Avenue) and Bronx's Mott Haven and Vicinity (ZIP Codes 10451, 10454, and 10455)—at schools, museums, science and environmental centers, and other informal teaching venues. In order to participate in the challenge, educators must download an application at [www.TeacherChallenge.org](http://www.TeacherChallenge.org) fill it out, and submit it along with:

\*A letter of recommendation from an administrator or supervisor.

\*An energy-related lesson plan—either printed or on CD—that demonstrates the educator's creativity and methodology.

Applications must be postmarked by April 30th, 2008 and sent to:  
CSTL; Attn: Teacher Challenge;

1 Tanglewood Road;

Rockville Centre, NY 11570

For more information e-mail [Support@TeacherChallenge.com](mailto:Support@TeacherChallenge.com), or by call 1 (800) 797-7544.

[http://schools.nycenet.edu/offices/teachlearn/science/rh/Con\\_Edison\\_8x11.pdf](http://schools.nycenet.edu/offices/teachlearn/science/rh/Con_Edison_8x11.pdf)

# The Free World of Science

## Science Matters

Science Matters is a free 24-page booklet sponsored by the Medtronic Foundation, that was designed as a tool for parents and educators to help K-6 students unlock the world of science and discovery at home and school. With a blend of ideas, activities, and profiles of scientists and their inventions, Science Matters reinforces the important role of nurturing a child's natural curiosity and demonstrates that "science is everywhere." It also provides families with an understanding of what science is, and what it is not, and explores careers in STEM subjects. It includes a variety of interactive explorations and activities, and offers suggestions for additional science resources.



The booklet may be downloaded <http://www.medtronic.com/foundation/community-ed-science-matters-form.html>.

## Lessons for Earth Week

These lessons can help teachers celebrate Earth Week. The lessons are geared towards grades K-5. The website also has some contests for students in grades 9-12. Click on the link to download all lessons.

[www.awma.org/enviro\\_edu/earth\\_week\\_2008.html](http://www.awma.org/enviro_edu/earth_week_2008.html)

## Clean up for Earth Day

There are lessons for Earth Day, April 22 geared towards grades 5-7.

[www.seventhgeneration.com/earth-day-lesson-plan](http://www.seventhgeneration.com/earth-day-lesson-plan)

## Multilingual Science Glossary

An online tool from McGraw-Hill presents an extensive vocabulary list, with each term and definition translated into 13 different languages. For Middle School: <http://www.glencoe.com/sec/science/mlg/mlg.php?site=19>

For High School: <http://www.glencoe.com/sec/science/mlg/mlg.php?site=20>

## Meet the Greens

At this website from Boston's WGBH, children can watch the animated adventures of the Green family and find environmental-science games, news, downloads, a blog, printable tips, and internet links. This web-only project explores green living, sustainability, ecology, and environmental stewardship. <http://www.meetthegreens.org/>

## Exploring Environmental Issues: Biodiversity

This new addition to the Project Learning Tree collection of modules uses biodiversity as the means through which secondary students investigate the environment. It emphasizes a broad view of the concepts involved and makes connections beyond the biological to include political, cultural, ethical, and economic considerations as well. Educators may download, print, and use the online materials for this module. [http://plt.org/cms/pages/21\\_21\\_16.html](http://plt.org/cms/pages/21_21_16.html)

## Help New Yorkers Recycle More, Waste Less!

Free information on recycling, waste prevention, and composting at your upcoming Earth Day events is available at: <http://www.vanguarddirect.com/bwpr/earthday/order.html>

## Science Smarties

At this website, science teachers will find a series of quizzes, online activities, and assessments put together by an educator in Ireland. Some items are printable (word-searches), some are online only (games, crosswords, and match-ups) and some can be completed by either method (diagrams and multiple-choice tests). Topics include astronomy, biology, botany, chemistry, Earth science, and physics. <http://teachnet.ie/mamond/2006/>

## Engineer Girl

This website from the National Academy of Engineering focuses on the opportunities in engineering for women and girls, exploring possible careers (how about becoming a chocolate engineer?), profiling women already in the field, and taking a look at the academic path to a future in engineering. Site visitors also can access the "Ask an Engineer" feature. <http://www.engineergirl.org/>

## The Grant World

### Congratulations To Port Morris School-PS 5X on Receiving a Grant from Toshiba America Foundation

Port Morris School PS 5X received a Science and Math Improvement Grant from the Toshiba America Foundation in New York City for a project titled, "Jose, Welcome to the Bronx!"

# PS 5

Grant funds will enable fourth-and fifth-grade students to learn about the effects human beings have on the physical environment as they study the return of the North American beaver to the Bronx. Students will examine the "invisible" life of the Bronx River using microscopes purchased with grant funds, view a virtual tour of the Bronx River environment during their technology class, and create their own pond habitat in the classroom. They will use their findings to draw conclusions about how pollution and clean-up efforts, funded through the efforts of our local representative, Mr. Jose Serrano, have impacted the local river ecosystem. At the conclusion of the project, fifth-grade students will create a digi-documentary with the support of the school's technology teacher and Teaching Matters Consultant. The fourth-grade students will publish their research and write to Rep. Serrano to discuss what they learned about his work for environmental justice.



### Toyota Awards \$550,000 in Grants to K-12 Science Teachers

Toyota TAPESTRY, the largest science teacher grant program in the nation, awarded nearly \$550,000 in grants to 50 K-12 U.S. teachers at the NSTA National Convention last month. Fifty teachers received up to \$10,000 each and 27 received mini-grants of up to \$2,500 each. This year's projects range from evaluating emissions data from alternative fuel sources to an innovative forensics science investigation. To see the list of winning teachers and grant projects, go to

<http://www.nsta.org/programs/tapestry/thisyears.htm>.

Toyota awards grants to K-12 teachers each year. Judges select projects that demonstrate creativity, involve risk-taking, and possess a visionary quality in three critical areas: environmental, physical science, and science applications that promote literacy. Toyota has awarded more than \$6.5 million to 750 teams of teachers throughout the program's 15-year history.

It's never too early to begin working on your grant submission for next year. You could be among the next 50 teachers to get \$10,000 for your innovative ideas! Teachers can apply individually or in teams and applications are due in January. For more information about Toyota TAPESTRY grants, visit <http://www.nsta.org/programs/tapestry> or call (800) 807-9852.

#### **U.S. Potato Board School Wellness Grants**

*Deadline: 4/15/2008*

The U.S. Potato Board and the School Nutrition Foundation will award 10 grants of \$2,500 to public elementary schools for equipment and educational programs that will help move children toward healthier diets and improve their overall wellness. <http://www.healthypotato.com/>

#### **American Honda Foundation Grants**

*Deadline: 5/1/2008*

The American Honda Foundation makes grants of \$10,000 to \$100,000 to K-12 schools, colleges, universities, trade schools, and others for programs that benefit youth and scientific education. "Scientific education" encompasses both the physical and life sciences, mathematics, and the environmental sciences. The foundation is seeking programs that meet the following characteristics: scientific, dreamful (imaginative), creative, humanistic, youthful, innovative, and forward thinking. Deadlines to apply for the grants are **May 1, August 1, November 1, and February 1**. <http://corporate.honda.com/america/philanthropy.aspx?id=ahf>

## **Earth Day Photo Contest for Middle School Students**

*Deadline: 5/9/2008*

During the week of Earth Day (April 22), U.S. students in grades 5-8 can be part of a unique national effort to capture our changing world. Anytime from April 22 through April 29, have your students take a photograph of something that is changing in their local environment. It could be a change occurring in their backyard, outside their school, in a local park, or off in the distance toward the horizon. Students will then research and write an explanation of the photograph (400 words or less) that answers questions listed on the contest's website. The top three winners will receive a digital camera, digital photo frame, and digital photo keychain, respectively. The top 10 winners will receive their photograph in a special commemorative frame.

<http://www.strategies.org/education/index.aspx?sub=education&sub2=earthday&sub3=contest2008>

## **Award for Breakthrough Middle and Secondary Schools**

*Deadline: 5/15/2008*

The National Association of Secondary School Principals (NASSP) and the MetLife Foundation are calling for entries in the search for the nation's top "Breakthrough Schools." Applicants should be high-achieving middle or high schools, or schools that are making dramatic improvements in student achievement, whose best practices and outstanding results can inform other schools as they further their own improvement efforts. Honorees will be chosen based upon documented success in implementing strategies aligned with the three core areas of NASSP's Breaking Ranks II publication. Those three areas are collaborative leadership; personalization; and curriculum, instruction, and assessment. Maximum Award: \$5,000. Eligibility: High-achieving middle and high schools where 40 percent or more of students are eligible for free and reduced-priced meals.

[http://www.principals.org/s\\_nassp/sec\\_inside.asp?CID=66&DID=66](http://www.principals.org/s_nassp/sec_inside.asp?CID=66&DID=66)

## **Chemists Celebrate Earth Day Haiku Contest**

*Deadline: 4/11/2008*

As part of its Chemists Celebrate Earth Day celebration, the American Chemical Society (ACS) is sponsoring an illustrated haiku contest for students in grades Kindergarten-12. A haiku is a three-line poem with five syllables in the first line, seven in the second, and five in the third.

Winners will be selected in each of the following categories:

- K – 2nd grade
- 3rd – 5th grade
- 6th – 8th grade
- 9th – 12th grade

The first-place winner in each category will receive \$200; the second-place winner will receive \$100.

[http://portal.acs.org/portal/fileFetch/c/WPCP\\_007027/pdf/WPCP\\_007027.pdf](http://portal.acs.org/portal/fileFetch/c/WPCP_007027/pdf/WPCP_007027.pdf)

## **2008 Presidential Awards for Excellence in Math, Science Teaching**

*Deadline: 5/1/2008*

Nominate outstanding teachers for the Presidential Award for Excellence in Mathematics and Science teaching (PAEMST). This award honors exemplary K-12 mathematics and science teachers for their contributions to improving teaching and learning. This year, elementary teachers may apply.

[www.paemst.org/controllers/home.cfc?method=view](http://www.paemst.org/controllers/home.cfc?method=view)

## **Edu-Resource's Teacher Grants, Grant -Writing Programs**

*Deadline: 5/1/2008*

This grant-writing program allows teachers or schools to raise money by writing grants for their programs and using Edu-Resources as a resource for extra funds to benefit additional schools. [www.edu-resource.com](http://www.edu-resource.com)

## ELL'S Science Workshops

### Connecting ELLs to Science through the Study of Evolution and Genetics

Middle and High Schools - April 14 and May 23

Assistant principals, high school and middle school science teachers, and bilingual science teachers can register for a two-day institute that strengthens background knowledge in science and builds capacity at the school level to raise the academic achievement of ELLs in science. Held at the American Museum of Natural History, sessions focus on evolution and genetics specifically for ELL classrooms. Workshops are in both Spanish and English. Participants will have an opportunity for self-guided exploration at the end of both days as well as free admission to the Imax: Dinosaurs Alive film. The institute will be held April 14th and May 23rd (8:30 a.m.-3:30 p.m.). The cost of this institute is \$100 per participant (FAMIS# TLELL0049). Register online at <http://pd.nycoit.org> For additional information, contact Odalys Igeneri at [Oigneri@schools.nyc.gov](mailto:Oigneri@schools.nyc.gov) or (212) 374-0787.

### "Raising the Bar on Science Instruction for ELLs Symposium"

Elementary, Middle and High Schools - May 9th

Principals, administrators, school support organization staff, ESL teachers and science teachers of ELLs can register for a full-day institute on ways to increase the academic achievement of ELLs in science. The institute features researchers Dr. Catherine Snow of Harvard's Graduate School and Dr. Okhee Lee of the University of Miami who will share their strategies for narrowing the achievement gap for ELLs. At the institute, participants examine high quality instructional materials; learn new ways to teach the academic language of science to ELLs; share best practices from the field; and, use and analyze data to improve science instruction and target high needs areas. This institute is May 9, 2008, 8:30 a.m.-3:30 p.m., in the New York Botanical Gardens, Bronx River Parkway at Fordham Road, Bronx, NY 10458. The day will include two keynotes, two workshops, breakfast and lunch and a tour ride of the gardens. To register for this institute, visit <http://pd.nycoit.org>. The cost is \$50 per participant (FAMIS# TLELL0050). For additional information, contact Odalys Igeneri at [Oigneri@schools.nyc.gov](mailto:Oigneri@schools.nyc.gov) or (212) 374-0787.

### Making Science Accessible for ELLs Middle and High Schools- May 14

Science teachers of ELLs, ESL teachers, administrators and support organization staff can register for a one day workshop on practical ideas for teaching science to ELLs through inquiry-based activities on adaptation and natural selection. Mr. Alex Insaraulde, a Quality Teaching for English Learners (QTEL) staff developer for WestEd, will join with event location staff from the Staten Island Zoo to develop participants' theoretical understanding and practical knowledge of effective practices for teaching students who are learning English and science content simultaneously. This workshop builds capacity at the school level to raise the academic achievement of ELLs using QTEL scaffolding techniques for science lessons. This workshop will be held at the Staten Island Zoo on May 14, 2008, 8:30 a.m.-3:00 p.m. To register for this institute, visit <http://pd.nycoit.org>. The cost is \$50 per participant (FAMIS# TLELL0048). For additional information, contact Odalys Igeneri at [Oigneri@schools.nyc.gov](mailto:Oigneri@schools.nyc.gov) or (212) 374-0787.

## Department of Science Professional Development Offerings



We have had tremendous feedback regarding our professional development workshops. We are winding down our Spring offerings and are about to launch our **Summer 2008 Professional Development series**.

Below is a short description of each workshop that is still available for the spring. Principals need to pay through FAMIS to enable teachers to attend. After making a payment through FAMIS and obtaining a purchase order number, the teacher then can click on the “Click Here” tab and register. The teacher must have the purchase order number in order to complete registration. <http://schools.nycenet.edu/offices/teachlearn/science/SciencePD.doc>

### **Earth Science–Part D Training (Middle and High School) May 10th**

This full day workshop session will introduce both the practical and written components of the Earth Science Part D Regents examination that will be given for the first time in June 2008. Teachers will set up the stations for the practical examination, take the test and grade the performance tasks utilizing the state rubric.

### **Observing Science Classrooms & Structures to Support Science Instruction (Elementary) (Principals) May 8th**

This half-day workshop will be conducted at an elementary school in Queens. Principals will be introduced to rubrics used in science classrooms for observations and rubrics used for science fairs. The principals will receive and discuss protocols used for observing a science lesson in the elementary school. They will walk through various classrooms, take notes and engage in discussion groups with the science cluster and classroom teachers. A discussion and examples of “How to Schedule Your School With Enough Science Periods” will take place during the visit.

### **Personalized, In House, One-on-One Science Support Services (Half Day or Whole Day) (All Levels) Your choice of date.**

Receive personalized half-day, one-on-one science support services for grades K-12. Services include, but are not limited to, planning for effective professional development, Principal/AP support and development, walk through evaluations and recommendations, instructional support, both informal and formal teacher observations, help with inquiry teams and setting up effective classroom and laboratory room environments.



## Complete Weather and Climate Curriculum

Do you want to learn more about weather and climate? Are you interested in lesson plans and supplies for your classes? The NYC Center for Space Science Education and the American Museum of Natural History have teamed up to create an exciting new curriculum called *Airplanes & the Atmosphere: Investigating Human Impact on Earth's Climate*. This spring they are offering a P-credit course to support the use of this curriculum.



Participating teachers will receive the complete curriculum, including all lesson plans, student sheets, overheads, and assessments; AMNH Membership; AMNH Science Bulletins DVD; PBS DVD “Dimming the Sun”; a classroom set of stop watches; and a digital scale.

The course will meet Tuesday and Thursday evenings from April 29<sup>th</sup> through May 29<sup>th</sup>. Course sessions will be either at the NYCCSSE or the AMNH. P-credits can be applied towards salary differential (3 credits) or professional development hours (30 hours). The curriculum is intended for Regents Earth Science classes. For more information, check out [www.nyccsse.org/atmosphere](http://www.nyccsse.org/atmosphere) or call (212) 608.6164 x112. To register, go to <https://www.nyasdpdp.org/nyasdpdp.php>. The course number is P17-200S08. Deadline to register is April 16<sup>th</sup>.

If you are interested in piloting the curriculum, but cannot take the P-credit course, please email [kbrown@schools.nyc.gov](mailto:kbrown@schools.nyc.gov) or call (212) 608-6164 x112.

# Department of Science Professional Development -Summer 2008

Below is the tentative schedule for Science Professional Development Summer 2008:

## Week of July 28<sup>th</sup> – August 1<sup>st</sup>:

- 5<sup>th</sup> Grade FOSS, Harcourt and Blend
- Limited 6<sup>th</sup> Grade FOSS, Glencoe and Blend
- Accelerated 8<sup>th</sup> Grade

## Week of August 4<sup>th</sup> – August 8<sup>th</sup>:

- 7<sup>th</sup> Grade FOSS , SEPUP, Glencoe and Blend
- Limited 3<sup>rd</sup> and 4<sup>th</sup> Grade FOSS, Harcourt and Blend

## Week of August 11<sup>th</sup> – August 15<sup>th</sup>:

- 8<sup>th</sup> Grade SEPUP, Glencoe and Blend



We are planning on doing all the professional development at either IS 89M or across the street at Stuyvesant High School.

We hope to begin registration very soon. As soon as we have the registration links ready for you to register, we will send out the information and also advertise it in the Principal's Weekly.

## Updates from our Publishers



### FOSS Website:

NYC FOSS Website

[www.fossweb.com/nyc](http://www.fossweb.com/nyc)

If you have any questions for FOSS, please e-mail:

[fossnyc@berkeley.edu](mailto:fossnyc@berkeley.edu)

Redeeming Coupons: If you did not redeem your coupons from FOSS this year they are good for four years.



The Planning Guides are on the FOSS website.

Click on: <http://www.fossweb.com/NYC/>

Use fossnyc for your username and your password.

### **Summer 2008 FOSS Middle School Institutes**

NYC Middle School FOSS teachers have the opportunity to take weeklong intensive courses this summer from the Lawrence Hall of Science. Check the following courses and the links for details:

Populations and Ecosystems: August 6th-10th, 2008

[http://schools.nycenet.edu/offices/teachlearn/science/rh/PopEco\\_Workshop\\_Flyer\\_plus.pdf](http://schools.nycenet.edu/offices/teachlearn/science/rh/PopEco_Workshop_Flyer_plus.pdf)

Chemical Interaction: July 2st-25th, 2008 [http://schools.nycenet.edu/offices/teachlearn/science/rh/Chem\\_Int\\_Workshop\\_07-08.pdf](http://schools.nycenet.edu/offices/teachlearn/science/rh/Chem_Int_Workshop_07-08.pdf)

Weather and Water: July 20th - 25th, 2008 <http://schools.nycenet.edu/offices/teachlearn/science/rh/WWApplication08.pdf>

Make sure to check out the FOSS website for planning guides and many other needed resources. The Spanish translation for Populations and Ecosystems (units 3-4, grade 6) is available now on

<http://www.fossweb.com/NYC/>. The translations for the remaining three titles (Chemical Interactions, Weather and Water, and Planetary Science) will be available online in August.

### **Harcourt Website:**

NYC Harcourt Website:

[http://www.harcourtschool.com/menus/science/index\\_nyc.html](http://www.harcourtschool.com/menus/science/index_nyc.html)

If you have any questions for Harcourt, please e-mail:

[Jeanette.Watley-Wilson@harcourt.com](mailto:Jeanette.Watley-Wilson@harcourt.com)

You should follow these easy steps to download the Harcourt planning guide:

First click on the Teachers Link.

Then click on the NYC Planning Guides.

Then click on the Grade and Unit you want to view.

When asked for a password type in the following: NYCPG

The password works for all NYC teachers.



**Glencoe Website:** The NYC Glencoe site will be ready shortly. In the meantime, here is their website:

[http://www.glencoe.com/sites/new\\_york/teacher/science/index.html](http://www.glencoe.com/sites/new_york/teacher/science/index.html)

Here is information for some recalls: <http://www.mhcares.com/recall.html>

# Website World

## **Paleontology in the Badlands**

<http://www.smlj.org/badlands.html>

Canadian Hudson Bay area - staying at a research center

<http://www.smlj.org/canadian%20arctic.html>

## **Bottled vs Tap water**

<http://www.rd.com/special-reports/the-environment/rethink-what-youdrink/P5/article.html>

## **High School Demo videos**

<http://ocw.mit.edu/OcwWeb/hs/home/home/index.htm>

## **NYSED Updates**

The NYSED Curriculum, Instruction & Instructional Technology (CI&IT) Team's February 21, 2008 E-Blast is now available at <http://www.emsc.nysed.gov/ciai/EBlasts/eblast.html> It is also available on the NYSED CI&IT homepage, <http://www.emsc.nysed.gov/ciai/>, by clicking on the bold text, "CI&IT E-Blast"

## **A great resource for printing warning signs**

<http://www.ehs.cornell.edu/lrs/labdotlabels/labdotlabels.htm>

Also, go to:

[http://www.stclair.com/go/industrial\\_signage/sb2/html](http://www.stclair.com/go/industrial_signage/sb2/html)

from this website, you can design and print your own warning signs, complete with pictures from a standard library of images.

## **Q&A State requirements for lab science**

Here's the Q & A on Science Requirements from the SED web site. This is officially Part 100 (graduation requirements) policy material.

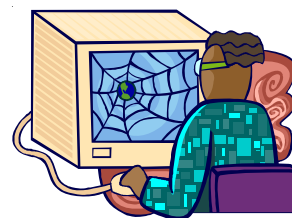
<http://www.emsc.nysed.gov/part100/pages/policyqascience.html>

## **Websites for little ones**

<http://www.iknowthat.com/com>

<http://www.switcheroozoo.com/default.htm>

<https://www.gocybercamp.org/login.php>



## **Antarctic Quest Challenge for Grades 5-14**

March - May 2008

NASA Quest Challenges are free Web-based, interactive explorations designed to engage students in authentic scientific and engineering processes related to issues encountered daily by NASA personnel.

For more information, visit:

<http://quest.nasa.gov/challenges/lima/about.html>.

**Moon Math** – Grades 6 - 9 [http://quest.nasa.gov/vft/#moon\\_mth](http://quest.nasa.gov/vft/#moon_mth)

**U.S Environmental Protection Agency (EPA) Go Green!** [www.epa.gov/newsroom/gogreen](http://www.epa.gov/newsroom/gogreen).

