

CONNECTICUT SCIENCE CONNECTION

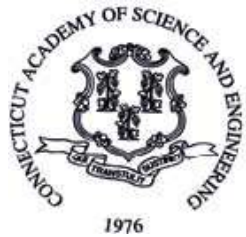
SEPTEMBER 25, 2007 ISSUE

THE CONNECTICUT BUILDING A PRESENCE FOR SCIENCE NETWORK IS SUSTAINED THROUGH A GRANT FROM BRISTOL-MYERS SQUIBB AND THE ADVOCACY OF THE CONNECTICUT ACADEMY FOR EDUCATION

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NAMES AND E-MAIL ADDRESSES OF OUR POINTS OF CONTACT AND KEY LEADERS ARE NOT SHARED WITH ANY OTHER ENTITY



ATTENTION teachers and students! You may access the Connecticut Academy of Science and Engineering's Fall 2007 Quarterly Bulletin at:

http://www.ctcase.org/bulletin/22_3/22_3.pdf. Teachers may distribute the Bulletin to students at no charge. Also, free electronic subscriptions to the Bulletin can be requested by completed the Form on the Academy's website at:
<http://www.ctcase.org/order.html>



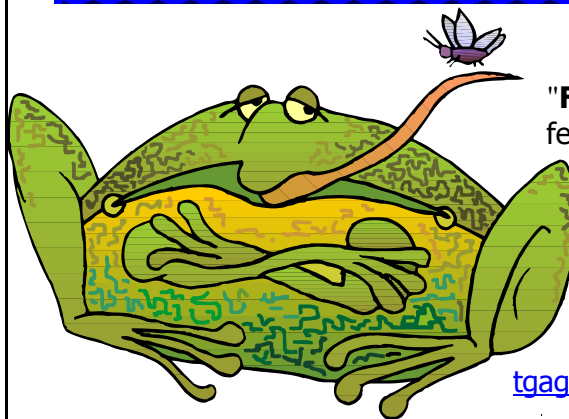
**CONNECTICUT
SCIENCE**

SUPERVISORS ASSOCIATION:
Dinner Meeting and Program:
Wednesday, October 3, 2007:
Keynote Presentation: **"How Big Is Big?"** by Dr. Jeff Goldstein, Director of the National Center for Earth and Space Science Education, Washington, D.C. Four Points Sheraton, 275 Research Parkway, Meriden. All are welcome to attend. Dinner Cost: \$33.00 for non-members, \$28.00 for members. To sign up and for more details, please click on:
[CSSAdinnerOct2007.doc](#)

MIT Club of Hartford is Announcing the 2007 MIT/Trinity Science Lecture: ERNEST J. MONIZ, Cecil and Ida Green Distinguished Professor of Physics at the Massachusetts Institute of Technology; former Under Secretary of the United States Department of Energy. **Topic: MEETING ENERGY CHALLENGES: TECHNOLOGY AND POLICY.** Tuesday, October 9, 2007 at 6:00 PM, Wean Terrace Conference Room; Mather Hall Trinity College; Hartford, Connecticut. To register, go to: [MITlecture](#). For directions, go to these [Trinity Directions](#) R.S.V.P. prior to 09/30/07. Fee for reception: **\$15** per person. No charge for lecture. For online registration, go to: [Registration](#)



The State Education Resource Center (SERC), is sponsoring *A Showcase of Science Instructional Resources* on November 7 and 8, 2007 at the 4 Points by Sheraton in Meriden. This Showcase will allow Connecticut's science administrators and classroom teachers to engage in hands-on exploration of instructional resources that support Connecticut's *Core Science Curriculum Framework* (2004). Participants will have the opportunity to attend three interactive presentations on inquiry-based materials. Throughout the day, teams will reflect on and compare the qualities of the instructional resources in order to make informed selections of science materials for their schools and districts. For the informational brochures and registration information, please visit www.ctserc.org.



"FROGS!" A "ribbet-ing" new exhibit featuring frogs of all colors, shapes and sizes-- is coming November 3 to The Maritime Aquarium at Norwalk! More information coming soon, or call Tim Gagne at 203-852-0700, ext. 2232 or e-mail
tgagne@maritimeaquarium.org



The University of Bridgeport is proud to announce its first year as host for the 4th Annual Science Decathlon on Saturday Feb 23, 2007. It is a whole day event. Students and teachers are invited to participate in the Northeast tournament.

Schools must register by October 15. More information about the event can be found on the website: <http://www.sciencedecathlon.com/tournaments.htm>.

Teachers and volunteers are invited to contact Dr. Asaad Samaan at the University of Bridgeport, Bridgeport Connecticut to help with the setup. Tel # 203-576-4213.

K-5 TEACHERS! A letter from a colleague. "I have been blessed with a year's sabbatical devoted to making science teaching resources more accessible to teachers. I'm based in New Hampshire, but most of the activities, links, and media will work if you are a K-5 educator. I'm launching a website called 'eLeMeNTS' (www.lmnts.org) which will house resources as they are developed and collected I encourage elementary folks with good lessons to join me in sharing their work through the website. There is a link to my blog on the website, and I welcome your feedback through the blog or directly by e-mail."

Bruce Larson, Enrichment Coordinator -
Christa McAuliffe Sabbatical 07/08

(603)772-5413 msg only 07/08

(603) 659-1743 blarson@sau16.org

THE FOLLOWING MATERIAL COMES FROM THE STATE DEPARTMENT OF EDUCATION AND IS INTENDED TO ASSIST EDUCATORS IN IMPLEMENTING THE FRAMEWORKS:

From Liz Buttner at the State Department of Education: Now that science is valued as an important part of the elementary school curriculum, many teachers – especially in the primary grades – are wondering how to fit science learning into a day that is highly focused on teaching reading, writing and mathematics. Although we have all heard the term "integration", I think a few concrete examples might spark a variety of creative ways to teach science, mathematics and reading standards concurrently. Two important points: (a) teachers must be explicit about which standards are being addressed



within a lesson; and (2) they must have flexibility to teach literacy skills by having students read books related to the science standards – in addition to or in place of the books that are included in the reading program they use.

Let's use a ½-day kindergarten as an example of ways to address the Framework science standards in a relatively short school day. I think a good approach would be to think of the kindergarten science concepts not as separate "science units", but as part of the established reading and math blocks. A couple of suggestions that may help:


K.1 – Properties of Objects. In the math standards, students are expected to sort things based on attributes such as color or shape, put them in order from smallest to largest, and look for patterns. If they practice these skills using leaves, shells, acorns or flowers, they are meeting the science standard too.

K.2 – Living/Nonliving Things. Talking about the classroom pets or going outside for a short walk to notice living and nonliving things in the surroundings (e.g., rocks, twigs, grass, birds, squirrels, pigeons, etc.) is a good way to develop oral language, as well as observation, sorting and classifying skills. Children can also sort pictures, toys or other classroom objects into groups of living or nonliving and share the criteria they used to make their decisions.

K.3 – Weather. This is typically done during a morning meeting or "carpet time". Children talk about today's weather, how it feels, how they dress, what they see. They can learn to read an outdoor thermometer or use the newspaper or internet to find out the daily temperatures at different times of day/night. The teacher can display a running chart of temperatures or conditions that students can add to in just a few minutes each day. The class can discuss the temperature patterns they notice over time (e.g., it's usually warmer during the day than it is at night; it's usually warmest around mid-day; temperatures are much colder in the winter than they are in the summer, etc.)

Kindergarten teachers are probably already doing most of these things. It may just be a matter of explicitly relating the classroom discourse and data collection to science and mathematics standards for observing attributes, sorting, finding patterns, making predictions, making graphs, etc.

You may be interested in information about an on-line short course in "Force and Motion" offered through the National Science Teachers Association. Could be fun for a small learning community of Gr. 4 or Gr. 8 teachers to do together.



In an attempt to keep the CSC at readable length, the following links

will allow you to access offerings in Previous Issues ([Return to Table of Contents](#))

[CSCSept10.pdf](#)

[CSCSept18.pdf](#)

[CSCSept4.pdf](#)



SOME OF THE EXCITING OFFERINGS THAT WILL BE PRESENTED AT THE ANNUAL SCIENCE EDUCATORS

CONFERENCE IN NEW BRITAIN ON OCTOBER 27 WILL INCLUDE:

For Elementary Teachers:

Mightiest Mollusk, The

Terrific Trio: Science,

Math, and Literature,

FOSS, CT. Frameworks, and

many more, For Middle School,

STEMCART, Golf ball phases

of the Moon, Wild Weather,

not Stories, and many more;

High School: *Chemystery,*

Update on AP Science,

Teaching Evolution out of the

Box, , and many more. Sign

up early to get your first

workshop choices by logging on

at: [CSTAConference](#)

Call for Papers for Connecticut Journal of Science Education:

The next issue of *Connecticut Journal of Science Education* is in the works and they are soliciting your contributions. They are interested in all topics and all aspects that apply to teaching and learning at all levels of schooling. They especially look for papers for the K-12 audience but also college and university level materials as well. Full description can be found by clicking on: [Journal.doc](#)



BioBus Educational Program Gears up for its 7th

School Year! Would you like to bring biotechnology to your students? The BioBus Educational Programs are here

to help! The Programs include **Connecticut's BioBus**, a custom-designed mobile laboratory that travels to schools across the state, as well as **BioConnection**, an equipment loan program that brings the same state-of-the-art equipment and experiments available on board the BioBus directly to your classroom. All Programs are offered free of charge and are designed for students in grades 4-12. Gearing up for its seventh year on the road, the BioBus Programs will be adding new features and resources to its website in the coming months. Log on to www.ctbiobus.org to sign up for the BioBus or BioConnection program, download teacher guides and classroom resources, or to sign up for a **professional development** workshop. And don't forget to check back often, as more good stuff is coming down the road!

MARITIME AQUARIUM FUN!



Adventure Under the Sea Exhibit! Meet some of the real undersea animals (like sponges, crabs, and sea stars) that inspired the SpongeBob cartoon characters. **And then go on the [SpongeBob SquarePants 4-D](#)**

ride! See more of the wonderful offerings at:

<http://www.maritimeaquarium.org:80/> **Norwalk Aquarium is looking for**

volunteers. For details and requirements, please click on:

[employmentopportunities.htm](http://www.maritimeaquarium.org:80/employmentopportunities.htm)



TEACHERS AND STUDENTS! Sam Rhine's Genetics Update Conference: Wednesday, November 7, 2007, Southington High School Auditorium , 720 Pleasant Street Southington, CT 06489-2713 Host: Joe Cipollini and Southington HS Science Department. For full contact information and to register, please click on: [GENETICS](#)

National Association of Geoscience Teachers – New England Section, Annual Meeting & Conference:

"Sharing Best Practices in Geoscience Teaching"

Saturday, October 13, 2007

at Manchester Community College, Manchester, CT

Co-sponsored by Manchester Community College Science

Department & Dinosaur State Park, Rocky Hill, CT. To see

full flier and information, please click on: [NAGT.pdf](#)



Go to this site to listen to the song by a teacher that won first prize. It is worth hearing, "No Cow Left Behind"

Please click on [NO COW](#)



WHY NOT AN EDUCATOR?

Nominate an accomplished "woman of innovation" for a statewide honor. Nominations have just opened online, and the website is awaiting submissions. The awards event is an affirmation of the astonishing female talent in our small, but mighty, state; and the women who have been honored to date are standouts in their fields. From architecture to cancer research to internet security and more, the caliber of the past winners and nominees is truly remarkable. Please go to Connecticut Technology Council's website - www.ct.org to get to the description of, and forms for, nominations. The categories are quite broad and the addition of the two awards for young women is noteworthy. And please feel free to send this email along to colleagues who may be interested, or whom you believe may also know of a Connecticut "Woman of Innovation".



1st Annual State-wide

Smart Growth Conference! 1st Annual State-wide Smart Growth Conference: Wednesday, November 14, 2007, Michel J. Adanti Student Center Southern Connecticut State University, New Haven, CT, 8:30 am - 4:00 p.m. Space is limited; please [register](#) to attend by Friday, September 28. [smart growth](#)

NASA has an exciting selection of Challenges awaiting your students this year all written to national standards. Check out these Exploring Space Challenges:

- 1) Keeping a close eye on the hurricane season this fall? Want to incorporate more hurricane activities in your earth science module? Then have a look at our new **Mission: Hurricanes!**, designed by the winner of last year's Teacher Challenge.
- 2) Back by popular demand, for those of you needing to meet more math standards and apply them to real science, then why not try out **Mission: Moon Math**, where your students get to explore the Moon beyond the classroom walls. Videoconferencing is required.
- 3) Wanting to be involved more with "Igniting the Flame of Knowledge", this year's theme to the return of the educator astronaut? Want to go beyond the usual grow a plant in a 2 liter bottle experiment? Then why not try out **Mission: Habitat Moon**. An extension to the STS118 Engineering Design Challenge, your students can get real-time feedback from NASA on their proposed projects!
- 4) And finally, just for you, a **Teacher Challenge** themed around the International Polar Year. The NASA ESC team is working collaboratively with NASA Cryospheric Sciences to provide you with an assortment of questions today's scientists are trying to uncover about the Antarctic. But don't be limited by one hemisphere, there are plenty of investigations for the Arctic, too!



Join the NASA Engineering Design Challenge and be part of space exploration by growing seeds flown in space!

What is to motivate you and your students this year to do a project? For each National Challenge, the first-place student will receive a \$100 gift certificate to the Discovery Store or a book store of their choice and a certificate mounted on a plaque. Each teacher of a winning student or student team will receive a \$100 credit at NASA CORE. At the end of all the Challenges, all names of winning students or student teams ages 11 and higher will be entered for a chance to win a trip to Space Camp in Huntsville, AL. A maximum of two students will be awarded this prize (to accommodate team participation). For students or student teams below the age of 12, names will be entered for a chance to win an e-Mission for that student's class. **Through the NASA Engineering Design Challenge, elementary, middle and high school students will:**

- Design, build, and evaluate lunar plant growth chambers
- Receive cinnamon basil seeds flown on STS-118
- Test lunar growth chambers by growing and comparing both space-flown and earth-based control seeds

You can also sign up for the NASA Express listserv to receive e-mail updates about the challenge and other NASA education activities. Visit <http://www.nasa.gov/education/plantchallenge> to register and to receive more information about the NASA Engineering Design Challenge. So don't delay and register today. All Challenges are currently open for registration. And please, feel free to share with your colleagues.

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Dr. Marcianna Ptak Delaney, NASA Exploring Space Challenges  
<<http://esc.nasa.gov/>> email: [marci.delaney@nasa.gov](mailto:marci.delaney@nasa.gov)



**FREE!! NEW OFFERING FROM PEABODY MUSEUM!** Especially for teachers grades 5-9! 2 day Biodiversity and Global Change Teachers Institute ! Saturday., October 20 and Sunday October 21. This exciting professional development program helps teachers use innovative curricula and hands-on, inquiry-based learning methods that link biodiversity with Connecticut's life and earth science standards in the Connecticut Science Grade Level Expectations. Our program emphasizes methodologies that improve critical science thinking including inquiry-and problem-based learning and science literacy and numeracy. Peabody Fellows teachers are able to engage their students in life and earth sciences, and prepare them to perform their best on the upcoming CAPT testing in Science. The Institute addresses many Connecticut Science Framework curriculum standards. To see the complete brochure, go to:

[Oct07brochure.pdf](#)

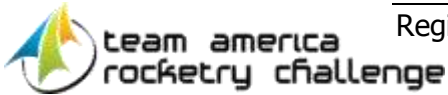


Want to go mushroom hunting, collect some minerals, learn about spear-throwing or learn more about Connecticut Snakes. You can even do some basket-weaving! All of these programs and more are offered this fall at the **Connecticut Museum of Natural History**. Go to their web site for a complete calendar and description at: <http://www.cac.uconn.edu/mnhcurrentcalendar.html> or get an abbreviated description at: [mushroomforay.doc](http://mushroomforay.doc)



CT Business and Industry Association, CT State Department of Education, CT State Department of Higher Education, and CT Academy for Education in Mathematics, Science & Technology, along with the CT Science Center, are collaborators on an initiative resulting in a grant that will help fund a training and incentive programs for Advanced Placement (AP) and pre-AP courses and exams for the next six years. A major goal is to prepare students to excel in math, science and English and encourage them to explore science- and technology-based careers. NSMI funding comes from the Exxon Mobil Corporation, Bill and Melinda

Gates Foundation, and the Michael and Susan Dell Foundation.



Registration for the Team America Rocketry Challenge 2008, a national model rocket competition for U.S. students in grades 7 through 12, opens on **Sept. 5, 2007**.

Thousands of students compete each year in the Team America Rocketry Challenge, the world's largest model rocket contest. Cash prizes are awarded to the top finishers. Teams of three to 15 students design, build and fly a model rocket to carry two raw eggs for a precise flight duration of 45 seconds and to an exact altitude of 750 feet. The team whose rocket comes the closest to both, and brings the eggs back unbroken, wins. To be eligible for the national fly-off, teams must fly a qualifying flight observed by an adult member of the National Association of Rocketry. The top-scoring 100 teams in the country will be invited to participate in the final fly-off to be held in May 2008.

Registration closes on Nov. 30, 2007, or when 750 teams have registered -- whichever comes first. For more information, visit <http://www.rocketcontest.org/>

**AGI ANNOUNCES CONTEST THEMES FOR EARTH SCIENCE WEEK 2007:** The American Geological Institute (AGI) is sponsoring three national contests in conjunction with Earth Science Week 2007, October 14-20 - "The Pulse of Earth Science." All U.S. residents are encouraged to enter "People Discovering Earth's Treasures" - this year's Earth Science Week photography contest. Submissions should depict an aspect of earth science as it appears in your community. Learn to look at your surroundings through a geoscientist's eyes and photograph what you discover. Contact: Geoff Camphire [gac@agiweb.org](mailto:gac@agiweb.org) Alexandria, VA

Students in grades K - 5 are eligible to enter the visual arts contest, "Changing Earth." Submissions should illustrate how geologic processes are constantly changing Earth's landscape. Draw a picture, make a collage, or create another piece of two-dimensional artwork that highlights the continuous change on our planet

The essay contest "Earth Science in My Community" is open to students in grades 6-9. Entries should be short essays of no more than 300 words explaining a unique geologic aspect of their community, discuss current earth science research in their geographic area, or indicate why it is important to study the geology of your town. For more information on these contests including information on how to enter, please go to <http://www.earthsciweek.org/>.



**57 WORKSHOPS! EXHIBITORS WITH LOTS OF STUFF AND INFORMATION! HUNDREDS OF FELLOW TEACHERS OF SCIENCE! (AND MUMMIES!)**

The 2007 Connecticut Science Educators' Conference Program is here! [Click here](#) for more information. This year you may register for the conference online. You may also pay your membership dues online. You can even register and pay dues at the same time! Follow the directions from the homepage for membership, or save a step and do both at once with your conference registration. To register, go to: <http://www.csta-us.org/>



**Nanotech Symposium for Educators and Journalists:** Join us for a lively journey into the mysterious world of the very small, and take part in provocative discussions concerning nanotech's very big potential impacts. This is a day of continuing education and enrichment with top researchers and experts skilled at communicating science and technology to lay audiences. Multiple break-out sessions are targeted to the varying needs of educators and journalists. Topics include *Nano 101*, *Nanotech and Society*, *Visualizing the Nano World*, *Teaching Nano*, *Nanomedicine*, *Nano and Consumer Health and Safety*, and *Covering the Nano Beat*.

**Audience:** Middle/High School Educators and Journalists. Available: Friday, October 26, 9:00 a.m. – 4:00 p.m. Registration required: 617-723-2500. Fee: \$25, includes parking, lunch, PEP certificate, and Exhibit Halls admission (open to 9:00 p.m. on Fridays). For updated information: [mos.org/educators](http://mos.org/educators). Co-sponsored by the Center for High-Rate Nanomanufacturing at Northeastern University, the University of Massachusetts Lowell, and the University of New Hampshire and by the Nanoscale Science and Engineering Center at Harvard and MIT.

**2007-2008 JWOD/JETS NATIONAL ENGINEERING DESIGN CHALLENGE:** The JWOD/JETS National Engineering Design Challenge (NEDC) is a competition in which teams of students learn and apply engineering skills while making a difference in the lives of persons with disabilities. More details are at [www.jets.org](http://www.jets.org).

The UConn Material Advantage (UCMA) society is made up of engineering students from several disciplines interested in sparking scientific inspiration in kids in CT schools. Each year they develop a Materials Quiz that focuses on the achievements of Connecticut scientists and engineers at CT companies and send it out to teachers. They are also offering teachers the opportunity to have them come into their classrooms and do presentations or help with longer experiments as well. Details can be found at: <http://www.cssaonline.net/UCMAQuiz&CL2007.doc>

**Take Action:** Tell Congress to Support Including Environmental Education in NCLB  
[http://www.democracyinaction.org/dia/organizationsORG/cel/campaign.jsp?campaign\\_KEY=7147](http://www.democracyinaction.org/dia/organizationsORG/cel/campaign.jsp?campaign_KEY=7147)

**Looking for a Science Position? Check out openings at:** [www.cssaonline.net/employmentopportunities.htm](http://www.cssaonline.net/employmentopportunities.htm)

**We are presently funded by Bristol-Myers Squibb**  
<http://www.bms.com/landing/data/index.html> **MANY THANKS TO OUR SPONSOR**