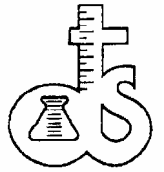




DELAWARE TEACHERS OF SCIENCE



A STATE CHAPTER OF THE NATIONAL SCIENCE TEACHERS ASSOCIATION

Winter 2006-07 Newsletter

WELCOME TO THE WINTER 2006 - 2007 EDITION OF THE DELAWARE TEACHERS OF SCIENCE NEWSLETTER

Newsletter Contents:

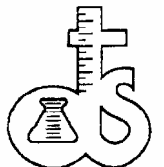
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DELAWARE TEACHERS OF SCIENCE

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Winter 2006-07 Newsletter



Fire destroys high school, plans for year uncertain

POSTED: 2:28 p.m. EST, November 2, 2006

GIBSONVILLE, North Carolina (AP) -- A fire that began in a chemistry lab destroyed a high school, leaving more than 1,000 students without a school building for the rest of the year.

A teacher spotted the fire around 2 p.m. Wednesday at Eastern Guilford High School and tried to put it out with an extinguisher, but then pulled the alarm. The school, which has 1,060 students, was evacuated, with students, teachers and other employees going to a nearby church.



The cause of the fire was under investigation.

The building was a total loss, said Mike Wright, deputy director of operations for Guilford County EMS.

"Those kids will not go back to school there this year, there's no question," said Guilford County schools Superintendent Terry Grier, who met Wednesday night with school officials to decide what to do. "Our primary goal is to try to keep the classes together as much as we can."

School administrators discussed space at other nearby high schools but did not decide where the students will go for the rest of the year. Classes were canceled for Thursday and Friday.

"I just don't know what we are going to do about school or football," said Brandon Pride, 17. "I wonder if we've lost our transcripts and what this is going to mean for the rest of the year and college."

The school board planned to hold an emergency meeting Friday.

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Could this happen at your school? Think Science Safety!

CoCoRaHS Asking for Help From Retired Science Teachers

Do you enjoy weather and would like to support a great project? Nolan Doeskin is looking for volunteers throughout the United States to expand a community weather project. The information from this project is collected and used. Nolan especially wants retired science teachers, as he knows

many of them love weather. The website and contact information follows. This project has been very successful and ready to grow, but it needs your help!

"The Community Collaborative Rain, Hail and Snow (CoCoRaHS) Network is an opportunity for people of all ages to help in a national study of precipitation patterns. The Network is established in Colorado, Wyoming and New Mexico and is just starting in Montana, Nevada and soon in Utah (we have a companion organization in Arizona called "Rain Log") This project is a great opportunity for retired scientists and science teachers with an interest in weather, climate, water and natural resources to 1) help measure and report precipitation from their own back yards and/or 2) bring the project to the attention of schools, teachers, or anyone with a weather interest in their communities, and/or 3) help organize community training sessions to teach interested folks (students, teachers, and anyone else) how to measure and report precipitation for the CoCoRaHS network (Whenever there is enough interest to guarantee at least 6 attendees, we can usually arrange for a qualified meteorologist to come to lead the training session). If, by some chance, there are any retired science teachers with an outright passion and fascination with weather and climate, other opportunities to help with outreach and research on the local level exist. For more information, please visit the CoCoRaHS website at

<http://www.cocorahs.org> and contact:

Nolan Doesken
State Climatologist
Colorado Climate Center
Colorado State University
Fort Collins, CO 80523
(970) 491-3690
nolan@atmos.colostate.edu

Science in the Amazon Opportunity for Educators

We are pleased to announce our 15th annual Educator's Amazon Rainforest Workshop, co-sponsored by Selby Botanical Gardens, June 30 - July 9, 2007. Teachers will take learning to a new level (literally!) on a one quarter mile treetop canopy walkway. An opportunity for teachers to TRAVEL FREE when they bring a group of 6 students is more fully described on our website <http://www.travel@learn.com>

There are so many dimensions of science in this Amazon experience. We study entomology, botany, marine biology, herpetology, and primatology through hands-on experiences. We see how technology has evolved through the native people and their crafts (how they thatch their roof, how they form the clay pots, how they mend fish nets, etc). We're involved in a village service project. For most participants, the BIG learning is how people are related to conservation. The RAINFOREST is someone's backyard, an important part of the conservation equation. This is a LIFE experience. Science comes to LIFE. Our evaluations say "THIS CHANGED MY LIFE!" over and over again. It is an experience in a third world that is safe, comfortable, and welcoming.

Please post this message (below) in a newsletter, on a web site, or listserv. We appreciate your camaraderie in making these opportunities available. Let me know if I should be sending this release to another person in your organization or district. I look forward to hearing from you. Many thanks for your help,

For more information contact Frances Gatz (Ph.D), fgatz@earthlink.net

ELEMENTARY SCHOOL SCIENCE OLYMPIAD FOR PRIVATE SCHOOLS

**Sponsored by
Saint Mark's High School
2501 Pike Creek Road
Wilmington Delaware 19808
February 10, 2007
8:30 a.m. - 2:00 p.m.
Open to Grades 4, 5 & 6**

A school may send one team of 8 per grade. Maximum number of teams per grade is 24.
Send reservations to Marge Christoph at Saint Mark's High School by February 1, 2007
Telephone number is 302-757-8741

Schedules and rules will be found on Saint Mark's web site at www.stmarkshs.net. Click on rules and events.
For further information call Marge Christoph at 302-757-8741.

ELEMENTARY SCHOOL SCIENCE OLYMPIAD FOR PUBLIC SCHOOLS

Sponsored by the Delaware Section of the American Chemical Society

**And Saint Mark's High School
2501 Pike Creek Road
Wilmington Delaware 19808
April 21, 2007
8:15 a.m. - 12:00 noon
Medals will be awarded at 12:15 p.m.
Grades 4, 5 & 6/7**

The teams from the 6 and 7 grades may be all 6 graders or all 7 graders or a combination of both. Each school may send 2 teams of 4th graders, 2 teams of 5th graders and 2 teams of 6 and 7 graders. The number of students per team is 7. The cost per team is \$10.

We can accept 24 teams from the 4th grade, 24 teams from the 5th grade and 24 teams from the combined 6th and 7th grade.

Send reservation to Marge Christoph at Saint Mark's High School, 2501 Pike Creek Road, Wilmington, DE 19808. **Checks should be made payable to the Delaware Section of the American Chemical Society.**

Schedules and rules will be found on Saint Mark's web site at www.stmarkshs.net. Click on rules and events.
For further information call Marge Christoph at 302-757-8741.

**CAIRNS'
CORNER**

**The World of Educational Reform
(According to Cairns)**

I met an orchid grower at lunch the other day, and he told me he belongs to an association that believes you need a rich loam to grow the best plants. Another association, he said, favors a mixture

of redwood shavings and sawdust. And a third advocates a combination of both. “These associations,” said the grower, “are known as shavings-an-loam associations.”

”What else can I tell you about Dr. Renee O’Leary? As I indicated in the previous chapter of this saga, Renee was the Delaware Teacher of the Year in 1982. Later as she was working with Sandy Wolford and the multi-sensory programs from Berkeley; she became upset that SAVI/SELPH did not have an early childhood component and was further horrified to learn that NSTA was doing little for science education for the primary child! What could be done to correct this situation? Renee considered it a challenge and as they say, the rest is history!

But let me start at the beginning. Renee has been teaching for more than 40 years in both the public and private school systems in two different states, Pennsylvania and Delaware.

Renee has won more teaching awards than any other person in Delaware! In addition to DE Teacher of the Year, she was an Elementary Presidential Award winner in 1991 and won the prestigious Christa McAuliffe Award the same year. She won a Dupont mini-grant in 1990 and a host

of other awards. She was named a Superstar in Education by the DE Chamber of Commerce in 1992, and the State Farm, “Good Neighbor” in 1993. Since that time, I have listed a few of Renee’s many awards: National Teachers Hall of Fame (1994), Science Alliance (1995), Association for Childhood Education, Hall of Fame (1996), Hall of Fame for Delaware Women (1998) and the Dolly Parton Chasing Rainbows Award (2003). Incidentally Renee was the initial awardee of the Dolly Parton honor. Renee and her good friend Dr. Peggy Dee have done workshops all over the United States and are the only two Delaware public school teachers to have ever been invited to Great Britain to speak at the prestigious Association for Science Education (British NSTA). Renee wrote the original primary “Science in A Sandwich Bag” (DuPont mini-grant) for primary students and enlisted the assistance of her friend,



Renee O’Leary enjoys time with one of her students

Peggy as her program grew and she needed someone with experience with intermediate grade children. Also assisting Renee is her husband, Jack a well-known and well-respected oral surgeon (retired) from New Castle County.

Renee created the P.A.S.S. program (Portable, Affordable, Simple, Science) program for grades K-1 and B.L.A.S.T. (Bringing Literacy and Science Together) program for grades 2-3. These were developed from her extensive kindergarten teaching experience primarily in the Wilmington and Colonial School Districts before retiring from the public system and her experience at Caravel Academy as part-teacher/curriculum designer in the private school sector.

“It is a great joy to be able to share my understanding of inquiry based, hands-on, minds-on science exploration with the K-3 students at this private school. Designing curriculum is part of my responsibility. To that end I have created P.A.S.S. and B.L.A.S.T. programs. For my Christa McAuliffe Fellowship I wrote of my dream of designing an early childhood science program that was multi-sensory, hands-on, totally linked across the curriculum and involved parents in the teaching-learning process. This is what we have done!”

Renee has been leading at least 4 national workshops annually for a great number of years. And as indicated above, Renee has spoken in Britain at conferences. She has led at least one workshop at each of the three regional and one of NSTA, each year. In addition Renee New York City several times each year to early childhood teachers in that large Renee's materials are used extensively in School system and in Kentucky, South and Michigan to name but a few! Dr. curriculum and materials are used all over America and perhaps in Great Britain!



national convention and Peggy travel to do workshops for metropolitan district. New York City Carolina, California, Renee O'Leary's the United States of

Our saga is nearly over. Delaware the nation through Renee and her team.

continues and much more has been accomplished locally. Much has been done to overhaul and update the Delaware science curriculum, standards, and assessment. I guess this will continue into the foreseeable future.

continues to lead The reform

On the national level we go back to politics and the election of President Reagan. He was no fan of the federal Department of Education. Based upon his experiences as Governor of California, he wanted to eliminate it from the federal government entirely. But the democrats were in control of both houses of congress, so he devised a plan to out maneuver the congress. He appointed a very prestigious blue ribbon panel of businesspersons to study the activities of the federal DOE and report back to him! He knew that the report would find the state of the education system in poor repair and he was going to use it to strike a final blow to the Department of Education. Fortunately for us the report, "A Nation At Risk," had just the opposite impact. The business community got fully behind the DOE and lobbied congress to increase spending in math and science education at the levels. Thus was born Title II and all its' funding of programs at the college level, state department of education, and individual school district levels!

The Nation At Risk gave all of us the money to work in Delaware and other states to overhaul our system again. Another election and we lost Title II! And so it goes. Reforms will continue, and I am sorry to believe that we need only to wait until the next election to see if my prediction is true and a new reform is launched!

Cliff, an intrepid photographer, went to a haunted castle determined to get a picture of a ghost which was said to appear only once in a hundred years. Not wanting to frighten off the ghost, Cliff sat in the dark until midnight when the apparition became visible. The ghost turned out to be friendly and consented to pose for one snapshot. Cliff popped a bulb into his camera and took the picture. After dashing into his studio, the photographer developed the negative and groaned. It was under-exposed and completely blank. The spirit was willing, but the flash was weak.

P.S. I mentioned several State Science Supervisors in my first chapter of this saga. Since 1960 following the launch of Sputnik and our (the U.S.A's) modern focus on Science Education, the following persons have served in the capacity of State Science Supervisor/ Education Associate for Science: Ed Hart (5), Walt Steidle (2), Charlotte Purnell Langrell (5), John Reiher (4), Doug Mc Beth (2), Jack Cairns (22), Rachel Wood (3), and Kelli Martin, currently. The numbers in parentheses are the approximate number of years of service in the capacity of science supervision.

Professional Development Opportunities



Courses for Teachers

EPSCoR Biotechnology Inservice

January 19-21, 2007

The EPSCoR biotechnology workshop for middle level and high school teachers offers teachers a unique opportunity to learn about biotechnology at all levels. Most people including many educators think of biotechnology as gene splicing or DNA analysis/interpretation but biotech roots lie with industrialization of agriculture at the turn of the century. In fact, agriculture is where the term originated with the industrialization of the dairy industry to produce mass quantities of products like cheeses and yogurt. Man's history with biotech goes back to his beginnings with hybridization of plants like potatoes and corn or wine and cheese making. This inservice will give you an introduction to how to teach biotech in the classroom from a product's historical roots, current agricultural applications, classroom applications of content and hands on laboratories, to the latest gee-wiz research applications.

Teachers should note that biotech is a very important part of the revised state standards and DSTP testing and this inservice opportunity is directed at answering that challenge as few teachers have any biotech courses under their belt, so to speak. Additionally, participants will take back to their classrooms supportive the texts and materials needed to incorporate biotech into their curricula.

Contact Bill Hall for any questions at 302-645-4253 or bhall@udel.edu

This opportunity is sponsored by NSF, Delaware Biotechnology Institute, and the College of Marine and Earth Studies. This course counts for 15 contact/inservice hours for recertification. Registration is through the Delaware Teachers Center. 1-800-282-8770. No charge for registration.

Elementary and Secondary Rookie Science Teachers Weekend

February 9-11, 2007

Delaware teachers with less than five years classroom experience are welcomed to attend this annual inservice which is unique to Delaware education thanks to Jack Cairn's foresight. Again this year it will be held at the Virden Center in Lewes, with both inservices held the same weekend. Joint programming simply means we have four curricular tracks for teachers to choose from: k-3; 3-6; 6-8; and 9-12 and the opportunity to have a few great general sessions for all to share in where we have speakers or topics of general interest. It also allows

teachers to pick and choose as there are often curricular content topics of interest that cross grade levels and content needs that answer specific teacher needs. This inservice is only possible through the commitment of our veteran teachers who are willing to spend their weekend sharing their curricular experiences with our Delaware rookies. It is always time well spent as rookies gain content, curricular survival knowledge, and make invaluable contacts with mentor teachers that can last a lifetime.

If any teacher rookie or veteran has suggestions or ideas for this years program please share your thoughts with Bill Hall at 645-4253 or bhall@udel.edu and/or Jack Cairns at 734-4600.

Contact Bill Hall for any questions at 302-645-4253 or bhall@udel.edu

This opportunity is sponsored by Delaware Teachers of Science, Delaware Teacher Center and the College of Marine and Earth Studies.

This course counts for 15 contact/inservice hours for recertification.

Registration is through the Delaware Teachers Center. 1-800-282-8770. Charge for registration, \$325.00

Contact your district for the fees as each district has funds for new teacher inservice.

ASTROBITS: Fall & Winter 2006
For further details about information provided in

ASTROBITS, call Dr. Stephanie Wright at 454-2432.
Space Science Technology Education/Delaware Teacher Center
swright@udel.edu or our website: www.dasef.org



DASEF Vision:

To create an exceptional learning environment that inspires children and their families with a sense of appreciation for the earth and its place in the universe.

INNOVATION, TECHNOLOGY & EXPLORATION CENTER:

Founded in 1989, the Delaware Aerospace Education Foundation (DASEF), an independent non-profit educational organization having 501(c)(3) status, exists to inspire and educate the people of the Delaware Valley in the areas of math, science, technology and aerospace through the use of academies, presentations, symposiums, professional development, events and activities and the new ITEC.

Nature walks, Stream Watch and a focus on indigenous plantings integrate the grounds with the foundation's state-of-the-art "green" construction. Key features of the applied learning experiences are a nature trail and walkway, dinosaur digs, wetlands, weather station, outdoor exhibits and wildflower fields. StarLab presentations are available...

The Environmental Outpost (Phase I) is open by appointment.

FIELD TRIPS focused on Earth and Space Science will be offered starting in early January. If you have interest, please email swright@udel.edu for more information.

The Environmental Outpost provides a facility that demonstrates the DASEF mission with emphasis on the appreciation and understanding of the natural world and beyond and the integration of human ingenuity with the ecosystems of the Earth.

2007 GODDARD SPACE CENTER: EARTH AND SPACE SCIENCE WORKSHOP:

Classroom teachers must register by January 10 to allow time for Goddard Space Flight Center to process 1-day visitor badges for entrance to the center.

First come first serve MUST REGISTER BY JANUARY 10 in order to attend. To get on the list, please email swright@udel.edu with the following information.

In the subject area put GSFC - List your name, school, district, grade and subject taught, home address and home phone number. Day trip will include speakers, tour, and transportation & box dinner.

February 15th snow date: Feb. 20th of 2007 Lunch on your own.

Cost \$55 per person. Maximum: 23

Send Check by January 10 for \$55 payable to:

DASEF

5 Essex Drive

Bear, Delaware 19701

Objective: To use the NASA mission, facilities, human resources, and programs to provide exposure and experiences to teachers and faculty to support the enhancement of knowledge and skills, and to provide access to NASA information in science, mathematics, technology, engineering, and geography.

2007 Civil Air Patrol (CAP) Workshop:

Saturday, March 17 Environmental Outpost

585 Big Oak Road

From North or South, take DE-1 (toll road) Take Smyrna South Exit 114 to Rte 13 South. At light, turn left onto Route 13 South, at next light, turn left onto Big Oak Road. After passing under Rte 1, turn left onto HenHar Drive then right onto Wright Way and right Dino Drive. The Outpost is in the far corner of the property. Another option is to take Route 13 (not a toll road), >From South, turn right on Big Oak Road. From North, turn left on Big Oak Road.

\$20.00 registration fee due by March 1 includes \$20.00 CAP membership, lunch and a personal flight that you will schedule with the CAP at a later date

LAUNCHING A DREAM:

The 2007 Launching a Dream (LAD) is the continuation of an annual, statewide, Aerospace Education Program in its sixteenth, consecutive year coordinated by Dr. Stephanie Wright. It is the culmination of the cooperative efforts of students, teachers, parents, and businesses at various Delaware mission sites. Brader Elementary School is participating in the 2007 LAD Program. If you are interested in participating in the 2008 Program, please call 454-2432.

DELAWARE AEROSPACE ACADEMY:

In operation since 1990, the Delaware Aerospace Academy provides hands-on training and experiences in earth and space related activities and fields for students in entering 2nd – 10th grades. . All academies are designed to integrate the study of science, technology, engineering and mathematics using AeroSpace Education as the unifying framework. **2007 Day**

Academies: 6/18 – 22, 6/25 – 29 & 7/16 -20

Overnight Academies: 7/8 – 7/13.

Youth can obtain an application online in January: please visit www.dasef.org

AVIATION WORKSHOP:

Look for training to be offered in the late fall of 2006. Introduction to Principles of Flight for Elementary Teachers can apply NOW! Call 454-2432 to register. Need a K-4 team of 2-3. Boeing Elementary Simulator comes to your school for 2 – 3 weeks after training!

KENNEDY SPACE CENTER/2007 SPACE SCIENCE CONFERENCE: under negotiation TBD

DELAWARE AEROSPACE CENTER:

Please call 454-2432 FREE NASA, FAA & CAP materials. Resources: Videos, Slides, and audiotapes to borrow or copy.

NASA EXPLORER SCHOOLS: For more information go to <http://explorerschools.nasa.gov>

Become a NASA Explorer School and partner with NASA to bring exciting and unique opportunities to educators, administrators, students, and families. Applications for the 2007 award are due the end of January.

ROCKETS FOR SCHOOLS PROGRAM: SATURDAY MAY 5, 2007

Students in grades K-College will be given the opportunity to participate in Delaware's Rockets for Schools Program. Different types of rockets will be launched all day, along with various displays, briefings and demonstrations at Cape Henlopen State Park. This eleventh historic launch day continues Delaware's distinction as a launch state. For more information about participating: www.dasef.org Information and Registration forms are available online under Rockets for Schools.

PLANNING STAGES: TWO-DAY SUMMER INSTITUTE FOR EDUCATORS

More information to follow in January. Tentative July 2 & 3, 2007.

Day 1: SunWise Day 2: Earth's Ecosystems

Other Professional Development Opportunities ...

Probing for innovative ways to teach science in your classroom?
Investigating how to stay informed about the latest science research?
Sign up for one of our Science Workshops for Educators today!
<http://teachscience.psu.edu/>

July 8-13: Weather Prediction

July 15-20: Planet, Star, or Neither? (NEW)

July 22-27: Evolution--How important is it to a good science education?
(NEW)

July 29-August 3: Extreme Particle Astrophysics (NEW)

August 5-10: Origins of the Cosmos

Keep pace with the latest science research, engage in standards-based classroom activities and explore ways to make science fun as you work side by side with Penn State faculty in our workshops. You can enjoy summertime's more leisurely pace at Penn State University Park campus as you network with peers from across the country. Sign up today and find out why most of our teachers come back to take additional courses in our series!

Our workshops provide teachers with:

- * enhanced science content knowledge,
- * classroom resources and
- * increased confidence

Workshop material is expected to be introduced into your classes the following year. All educators will receive 2 graduate credits.
Pennsylvania educators will receive Act 48 hours.

Grants from the Pennsylvania Space Grant Consortium and NASA will provide all participants with a lodging allowance, reimbursements for travel costs up to \$100, breakfast in the dining commons, and an allotment for lunches and dinners.

Teachers or their school districts are responsible for tuition and fees.
Tuition and fees may also be paid by a tuition subsidy. *Tuition subsidies are available for ALL of the workshops on a competitive basis.
*The tuition subsidies are need-based and assessed on a first-come, first-served basis.

For more information, contact...

About Program Content

Education Programs Manager

NASA's Pennsylvania Space Grant Consortium Penn State

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About Application and Accommodations

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E-mail: spacegrant@psu.edu

www.dasef.org

Check it out on our web site – www.dasef.org

Science Department

Safety Training Notes

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Volume 7, No. 2

Flinn Scientific Offers Science Safety Notes for Department Meetings

Access the notes at <http://www.flinnsci.com/Sections/Safety/Snotes/snotes.asp>

Online Chemistry Science Classroom Safety Guide

NIOSH Publication No. 2007-107:

School Chemistry Laboratory Safety Guide November 2006

This publication is a sixty page safety guide for high school science and chemistry laboratories, that provides practical safety information in a checklist format useful to both groups to reduce chemical injuries in a laboratory environment.

The guide presents information about ordering, using, storing, and maintaining chemicals in the high school laboratory. The guide also provides information about chemical waste, safety and emergency equipment, assessing chemical hazards, common safety symbols and signs, and fundamental resources relating to chemical safety, such as Material Safety Data Sheets and Chemical Hygiene Plans, to help create a safe environment for learning. In addition, checklists are provided for both teachers and students that highlight important information for working in the laboratory and identify hazards and safe work procedures. This guide is not intended to address all safety issues, but rather to provide basic information about important components of safety in the chemistry laboratory and to serve as a resource to locate further information.

You can read or download it from the Consumer Products Safety Commission Website at <http://www.cpsc.gov/CPSCPUB/PUBS/NIOSH2007107.pdf> or from or from the NIOSH website at <http://www.cdc.gov/niosh/docs/2007-107/pdfs/2007-107.pdf>

Note From the Editor ...

Attention All DTS Members ...

I have created a distribution list for the DTS membership to make our information get out more efficiently. Some of your emails, especially aol emails, do not always work. I made some corrections and used the state emails when I could (the ones that end in .k12.de.us). Please email me back at jmoyer@doe.k12.de.us if you have an alternative email or if you did not receive the newsletter electronically. Please check with your fellow teachers and see if they received their newsletter also. Thanks!

Newsletter Editor

John Moyer jmoyer@doe.k12.de.us, Science Van Project, John Collette Science Resource Center, Department of Education, 35 Commerce Way, Dover, DE 19904 and Ann Alexander, alexanderloyd@msn.com.

Please contact them if you have any items of interest.

Delaware Teachers of Science website:

<http://www.k12.de.us/science/dts>

Delaware Teacher Center website:

<http://www.dcet.k12.de.us/teachers/instres/dtc/index.html>