



APPLE SLICES

DELAWARE TEACHER CENTER

Teachers Helping Teachers



Vol. 23

Fall 2005

No. 1

Delaware Teacher Center Officers 2005-2006

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Debbie Kovalich, Woodbridge School District

Delaware Teachers Win National Award

A year ago Mary Jane Short, a second grade teacher in the Indian River School District and Laura Grass, a fifth grade teacher from the Appoquinimink School District were nominated for the Presidential Award for Excellence in Mathematics and Science, the nation's highest honor for teaching in those content areas. After receiving the nomination, each teacher was required to submit a video of a classroom lesson and write a paper reflecting on the lesson and her philosophy of teaching. Mary Jane's math lesson involved using graduated cylinders and colored water to teach volume. Laura's science lesson was from the Motion and Design Smithsonian kit. Mary Jane and Laura were named as state finalists first and honored at an awards dinner in Dover, hosted by Secretary of Education Valerie Woodruff. They were later chosen as the only Delaware math and science teachers of 95 elementary educators nationally, to receive the Presidential Award at the National Academy of Sciences in Washington, D.C. Prior to the awards ceremony, the teachers were invited to the White House where President Bush congratulated them and posed for a group picture. There was also a semi-formal dinner at the State House, a dinner cruise on the Potomac River, as well as an opportunity to observe five teachers presenting education issues to a committee of congressional leaders.



"A teacher affects eternity; he can never tell where his influence stops."

Henry Brooks Adams

New Policy Board Members

The Delaware Teacher Center is pleased to welcome the following new Policy Board members:

Appoquinimink School District	Kathleen Wilson
Catholic Diocese of Wilmington	Jane Grudzina
Christina School District	Susan Williams
Colonial School District	Diana Swinson
DE Assoc. of School Administrators	Clarence Davis

Teacher Centers on the Move!

Three Delaware Teacher Centers were relocated at the start of this school year and are now enjoying large, welcoming sites.

The Brandywine Teacher Center is now in Claymont Elementary School at 3401 Green Street, Claymont, Delaware. Please drive around to the back of the building and enter directly from an outside entrance into the center.

The center at the University of Delaware is now located in room 012 Willard Hall, within the Learning Resource Center.

The Woodbridge Teacher Center is still in Woodbridge Elementary School and has moved directly across the hall from its former location.

Thanks to center managers Toni Jacobs, Krystal LeBlanc and Susan Sorrells for their hard work packing, moving, unpacking and setting up their new centers. All three of these ladies worked to keep the centers open at the busiest time of the year!

In addition to the trip to Washington, D.C., Mary Jane received a \$10,000 award from the National Science Foundation which she has used to purchase a laptop computer, three LCD projectors, four scanners, and three Smart Boards for her school. Building funds allowed for the purchase of additional



Mary Jane Short



Laura Grass

Smart Boards and training for fifteen Long Neck teachers. Laura received science and math curricula from the JASON Foundation for Education, an overhead projector, and a professional development opportunity from Educational Tours. Both teachers also participated in the Disney Youth Education Series programs at the Walt Disney World Resort in Florida, where educators go behind the scenes of the theme park to examine and explore science, leadership, history and art.

Congratulations Mary Jane and Laura!

PROGRAMS FOR EDUCATORS

School Theme Tours

Guided school theme tours meet Delaware Department of Education Curriculum Standards in a variety of subjects, including Visual Arts, English Language Arts and Social Studies. Tours last approximately 60-90 minutes, depending on grade level and the needs of the group.

Teacher Workshops

Pirate Tales & Beyond: The Adventures of

Rip Squeak & Friends Workshop

November 5, 2005

10:15 a.m. – 1:30 p.m.

The Museum will offer guided tours of the exhibition *Pirate Tales & Beyond: The Adventures of Rip Squeak & Friends* and introduce participants to the exhibition's resource room, Rip's Book Nook. There is a \$10 program fee.

ArtSmart Events

Teachers can work with Delaware Art Museum Education Staff to coordinate an exhibition of student artwork from their school. At this event, students and their families are treated as "VIPs" at the Museum as they view an exhibition of student artwork based on the Museum's exhibitions, take part in gallery activities designed by the school and Museum's education staff and participate in docent-led gallery talks.

For more information on Programs for Educators, contact the Education Department at 302-571-9590 ext. 509, or at: www.delart.org. The Museum is located at 2301 Kentmere Parkway, Wilmington, DE 19806.



DELAWARE ART MUSEUM

CENTER LOCATIONS

APPOQUINIMINK CENTER	
Merle Knotts Middletown High School 120 Silver Lake Road Middletown, DE 19709 378-2757	
Mon.-Thurs.	1:30 – 6:00 p.m.

BRANDYWINE CENTER	
Toni Jacobs Claymont Elementary School 3401 Green Street Claymont, DE 19703 792-3831	
Mon.-Thurs.	2:00 – 5:00 p.m.

CAPE HENLOPEN CENTER	
Venessa Lassiter Milton Elementary School 512 Federal Street Milton, DE 19968 684-3006	
Mon.-Thurs.	3:00 – 6:00 p.m.

CAPITAL CENTER	
Sharon Moran/Ann Ciampa 75 Carver Road Dover, DE 19904 672-1926	
Mon.-Thurs.	4:30 – 7:30 p.m.

DTCC OWENS CAMPUS	
Debbie Lloyd/Heather Beutler Childhood Development Center/LRC Seashore Highway Georgetown, DE 19947 855-1649	
Mon.-Thurs.	8:00 a.m. – 7:30 p.m.
Fri.	8:00 a.m. – 4:00 p.m.

DELAWARE AEROSPACE CENTER	
Dr. Stephanie Wright 454-2432	
Mon.-Fri.	8:00 a.m. – 4:30 p.m.

INDIAN RIVER CENTER	
Faith Cox Sussex Central Middle School 302 East State Street Millsboro, DE 19966 934-7416	
Mon.-Thurs.	12:30 – 4:30 p.m.

LAKE FOREST CENTER	
B. Jacobs/J. Wood/L. Woodward Lake Forest North Elementary School 319 East Main Street Felton, DE 19943 284-5825	
Mon.-Thurs.	10:00 a.m. – 6:30 p.m.
Fri.	10:00 a.m. – 3:00 p.m.

UD CENTER	
Krystal LeBlanc Willard Hall Building Room 012 16 West Main Street Newark, DE 19716 831-2185	
Mon.-Thurs.	4:00 – 8:00 p.m.

WOODBRIIDGE CENTER	
Susan Sorrells Woodbridge Elementary School Governors Avenue Greenwood, DE 19950 349-4539 x 137	
Mon.-Thurs.	3:30 – 6:00 p.m.

DELAWARE TEACHER CENTER OFFICE	
512 N. duPont Highway Dover, DE 19901 736-6723 (800) 282-8770	
Mon.-Fri.	8:00 a.m. – 4:30 p.m.

A center will be closed if that district is closed due to inclement weather.



Using the Resources of the Delaware Teacher Center

This year make it a priority to visit a Teacher Center near you. You will find a wealth of resources for use in your classroom. On the October 7 in-service day Harriett Donofrio, retired DTC Director, conducted a workshop entitled *Using the Resources of the Delaware Teacher Center in Your Classroom*. She shared many ideas that were turned into lesson plans or learning center activities.

In one lesson, some teachers created a poster size vegetable garden from a picture on a standard size piece of paper. To help students explore measurement using standard and non-standard units, teachers created measuring strips with small, medium and large units. It was also easy to create sentence strips to use a combination of words and pictures to record student questions and responses about the vegetable garden. This lesson could be extended with great stories like *Whose Garden Is It?* by Mary Ann Hoberman, *Growing Vegetable Soup* by Lois Ehlert or *Corn is Maize* by Aliki.



Other teachers made math games for their students to practice addition and multiplication. Others created the math game Spin-A-Spud to practice addition. Spin-A-Spud can also involve writing about a real potato and reading books such as *Jamie O'Rourke and the Big Potato* by Tomie dePaola or *Potatoes, Potatoes* by Anita Lobel.

Several teachers assembled puzzles for students to practice logic and/or spatial visualization. The more opportunities students have to practice, the better their skills become.

During the workshop, many teachers made journals and simple, inexpensive books to help beginning readers. Using the book binding machine, take home books can be made from greeting cards and cereal boxes.

The possibilities at our Teacher Centers are endless. The centers can help you create materials to present information in unique ways – ways that will increase the likelihood that students will make connections between the activity and the content you want them to learn.



State Inservice Day Workshop

Following are some of the comments made that day:

"...What a great day! "An in-service that was practical and fun."

"I accomplished so much and appreciate all of the materials."

"We had a wonderful day. "The instructors gave us lots of ideas and support. "Thank you so much!"

"This workshop was very helpful. "The resources given will be useful in my classroom."

"Presenters were excellent! "What a useful in-service!"



"I'm very proud of you dear, but we can't afford to laminate every test you pass."

ASTROBITS: FALL 2005

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

2006 Goddard Space Flight Center Forum Thursday, February 15, 2006

Snow date: Wednesday, February 22, 2006

First come, first served. In order to get on the list to go, please email swright@udel.edu with the following information. Put GSFCF in the subject area. List your name, school, district, grade and subject taught, home address and home phone number. Day trip will include speakers, tour, and transportation. The cost is \$50 per person and lunch is on your own. The shuttle will depart from Friendly's on Route 896 in Newark (same road as UD stadium) at 7:20 a.m. The maximum is 23 K-12 educators.

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.

Sponsored by Aerospace Education, Delaware AeroSpace Education Foundation and Delaware Space Grant

Rockets for Schools Program Saturday May 6, 2006

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 tenth historic launch day continues Delaware's distinction as a launch state. For more information about participating visit www.dasef.org. Registration reminder will be sent to all schools in February. Information and registration forms are available online under Rockets for Schools.

Kennedy Space Center Space Science Conference

The conference is scheduled for April 27 - 30, 2006. First come, first served. To get on the list, please email swright@udel.edu with the following information. Put KSCC in the subject area. List your name, school, district, grade and subject taught, home address and home phone number. Trip includes three nights, banquet, transfers and Air Guard flight to and from Florida. The cost is \$240 per person.

Launching a Dream

The 2006 Launching a Dream (LAD) is the continuation of an annual, statewide Aerospace Education Program in its thirteenth 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. Redding Middle School will participate in the 2006 LAD Program. If you would like to participate in the 2007 Program, please call 454-2432.

Delaware Aerospace Center

Call 454-2432 to borrow or copy videos, slides and audiotapes.

Aviation Workshop

Intro to Principles of Flight for Elementary Teachers

Look for training to be offered in the winter of 2006. Apply NOW! Call 454-2432 to register. We need a K-4 team of two or three. The Boeing Elementary Simulator comes to your school for two to three weeks after training!

Planning Stages

Two-Day Summer Institute for Educators

More information to follow in January. Tentative for August 2006.

Day 1: Lunar/Meteorite Certification

Day 2: Earth's Ecosystems

Delaware Aerospace Academy

In operation since 1990, the Delaware Aerospace Academy provides hands-on training and experiences in AeroTech-related activities and fields for students entering grades 3-10. All academies are designed to integrate the study of science, technology, engineering and mathematics using AeroSpace Education as the unifying framework.

New Academy planned for 2006: Destination Dinosaur

2006 Day Academies: 6/26 - 6/30

Overnight Academies: 7/8 - 7/13

Students can register in early 2006 at www.dasef.org.

NASA Explorer Schools

NASA invites the selected teams to work with education specialists from NASA Centers in an effort to spark innovative science and mathematics instruction for students in grades 4 through 9. While partnered with NASA, NASA Explorer School teams will acquire new teaching resources and technology tools using NASA's unique content, experts and other resources - to provide exciting learning experiences science, mathematics and technology for students.

To learn more about the NES program and the on-line application process go to <http://explorerschools.nasa.gov>.

Deadline for submission is January 31, 2006.

Innovation, Technology & Exploration Center (ITEC)

Founded in 1989, the Delaware Aerospace Education Foundation (DASEF), an independent non-profit educational organization having 501(c)(3) status, exists to enlighten 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 ITEC.

The Environmental Outpost Phase I is near completion. Once our certificate of occupancy is received, set up and preparation for an April opening will begin. It is expected that the opening event will occur around Earth Day.

The ITEC will provide 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.

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.

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

Rockets for Schools Program



The tenth Rockets for Schools Program is designed to capitalize on the demonstrated affinity young minds have for space and exploration, while blending the uniqueness and educational goals of Delaware's schools in the process. The annual Rockets for Schools Program uses rocketry and applied space technology projects as the unifying framework for teaching math, science and technology.

In the early winter, grade K–12 Rocket Challenges are sent to every school in Delaware. For those who wish to participate, teachers first brief their students on the principles of rocketry and then allow them to work in teams in order to design and build a variety of rockets. These rockets will be launched prior to the High Powered Launches on Saturday, May 6, 2006 at Cape Henlopen State Park, Lewes, DE 9:00 a.m. – 3:00 p.m. On launch day there are exhibits, briefings, kites, Student Science and Technology Payload poster boards, as well as K–12 Rockets and Balloon Challenges, launches and awards throughout the day. The student launches precede the Advanced Model Rocket and High Powered Launches at the end of the day.



Thurgood Marshall Elementary Students

K–12 Students will be challenged to:

- View the launch of Delaware's sub-orbital rocket
- Learn the history of flight, rockets and the space program
- Design, construct and learn science and technology of rockets
- Enter the *Best Design & Construction* K–12 Rocket Challenges
- Enter the *Name the High Powered Rocket* and/or *Logo* Competition
- Launch completed rockets on May 6

Objectives

- Emphasize the importance of technology, discovery and science through time
- Promote aerospace education as an interdisciplinary framework for teaching engineering, science and math
- Inform and motivate students, teachers and the general public
- Stimulate knowledge about space and the environment
- Develop working relationships with affiliated aerospace and aviation organizations within the state of Delaware
- Provide a statewide educational impact through the internet sites providing information and resources to students, teachers and the general public

This is an excellent opportunity for teachers and their students to take part in an applied learning project. If you would like to participate, please contact Dr. Stephanie Wright, Aerospace Education, at 454-2432 or swright@udel.edu.

FACT

926 rolls, or **463,000** feet of laminating film were used in 2004-2005.

FACT

On October 7, **22** DTC programs were attended by **1077** teachers.

FACT

There were over **20,000** Teacher Center visits in 2004-2005.



Winterthur School Programs

Winterthur welcomes children, teachers, and group leaders for a wide variety of learning experiences designed to introduce our American country estate. Join us to examine Winterthur's magnificent collection of American antiques made or used between 1640 and 1860, explore H. F. du Pont's renowned naturalistic garden, and discover the magical children's garden, Enchanted Woods™.

Whether they involve trading in our Touch-It Room's country store or counting how many children it takes to hug a giant tree, our programs emphasize hands-on, small-group learning. Our curricula incorporate different learning styles and needs. Winterthur's programs were developed with extensive input from our educator advisory group and an awareness of the Delaware standards. Trained staff present increasingly complex material at age-appropriate levels through a menu of programs that can accommodate either specific grade-level audiences or groups encompassing a wide age range.

On-Site Programs

The on-site programs include the exploration of antique objects through guided experiences in the period rooms and Galleries, the chance to discover the delightful kitchen, store, and parlor in the Touch-It Room or create colorful art projects in the Activity Room. On-site programs cost \$5 to \$7 per student and are 1.5 to 2 hours in length.

Outreach Programs

Transport your group back in time without leaving your building with one of our hands-on outreach programs. Each program features activities or crafts designed to help students explore objects from the past. Programs cost \$75 per group for organizations within 50 miles of Winterthur and \$125 for groups located 50 to 90 miles away. Outreach programs accommodate 30 students per session and are 45 minutes to one hour in length. Reservations are required at least one month in advance for both programs. To schedule programs, please call (800) 448-3883, (302) 888-4600, or TTY (302) 888-4907.

Distance Learning

Winterthur can educate your students at a distance with primary-source research packets drawn from our rare book and manuscript collections. "Education in America from the Colonial Period to 1850", for elementary and middle-school classrooms, includes copies of a primer, school advertisements and an apprentice contract. "The Civil War: On the Battlefield and at Home", for middle and high school classrooms, includes a replica of a period game, copies of letters and diaries and sheet music. Packets may be borrowed in three-week blocks. Call (302) 888-4866 to make arrangements. We have also developed an interactive web story on apprenticeship and craftsmanship in the late 1800s that is perfect for ages 9 and up.

www.winterthur.org



Teacher Center Awareness Workshop

If you would like to arrange a Delaware Teacher Center Awareness Workshop in your school or district, please call the DTC Office at 736-6723 or (800) 282-8770. A 20-30 minute presentation will explain the services and resources available to all Delaware educators.



Capital Teacher Center Workshop



Japan Fulbright Memorial Fund Teacher Program Applications Available

The Japan Fulbright Memorial Fund (JFMF) Teacher Program allows distinguished primary and secondary school educators in the U.S. to travel to Japan for three weeks in an effort to promote greater intercultural understanding between the two nations. In 2006, six hundred educators will be selected to visit Japan in June, October and November.

Participating educators will begin their visit in Tokyo with a practical orientation on Japanese life and culture and meetings with Japanese government officials and educators. They will then travel in groups of 20 to selected host cities outside Tokyo where they will have direct contact with Japanese teachers and students during visits to primary and secondary schools as well as a college. They will visit cultural sites and local industries in addition to a brief homestay with a Japanese family.

The Japan Fulbright Memorial Fund, based in Tokyo, oversees all aspects of the Teacher Program. The program is sponsored by the Government of Japan and was launched in 1997 to commemorate the 50th anniversary of the U.S. government Fulbright Program, which has enabled more than 6,000 Japanese citizens to study in the U.S. on Fulbright fellowships for graduate education and research. The Institute of International Education acts as the agency for the Japan Fulbright Memorial Fund to coordinate the recruitment and pre-departure activities of the Teacher Program in the United States.

Educators throughout the United States can apply to take part in one of the three trips to Japan scheduled for 2006 as guests of the Japanese Government. Teachers of all disciplines, including art, physical education, English, ESL, history, geography, math, science and special education, from every region of the United States, are encouraged to apply. Applicants are not required to have previous knowledge of Japanese or Japan. The application deadline for all 2006 trips is December 10, 2005. For more information about the 2006 competition please refer to <http://www.fulbrightmemorialfund.jp> or contact 1-888-527-2636 (1-888-Japan-FMF) or jfmf@iie.org. All applications must be completed online.

Applications are available at www.iie.org/jfmf
Deadline: December 10, 2005

Oklahoma City National Memorial & Museum 2006 Teacher Fellowship Program

The Teacher Fellowship Program at the Oklahoma City National Memorial & Museum provides educators from across the United States an opportunity to study the events of April 19, 1995, and the resulting universal applications that are pertinent for classroom use across the curriculum.



Our goals for the Teacher Fellowship Program are for participants to:

- Understand the impact of violence
- Learn to make the world safer
- Learn to use an incident like the bombing of the Murrah Building and apply its lessons universally

The Teacher Fellowship Program will select twelve teachers as Memorial Fellows to participate in the program, which will be held June 11 – 15, 2006, at the Oklahoma City National Memorial & Museum. Travel expenses, food and lodging for Memorial Fellows will be provided. Fellows may receive a small stipend following their creation, use and documentation of classroom curriculum resulting from their participation in this program. The intent of this program is to reach beyond Oklahoma to assist teachers in teaching the lessons of April 19, 1995.

The program will begin with an orientation on Sunday evening, June 11, and continue through Wednesday with workshops, tours and other sessions for Fellowship participants. On Thursday, Memorial Fellows will join 35 educators from across Oklahoma in the Memorial's sixth annual Education Summit. Memorial Fellows will depart Oklahoma City either Thursday evening or Friday morning.

The curriculum for the Teacher Fellowship Program is geared to social studies. However, we will entertain applications from educators in all disciplines.

For additional information and an application form, go to http://www.oklahomacitynationalmemorial.org/educ_det_a.htm?id=2848241 and click on 2005 Teacher Fellowship Summary at the bottom of the page.

**Applications must be postmarked by
December 1, 2005.**

Indian River High School Educator Wins Governor's Marine Science Award



Todd Fritchman of Rehoboth Beach, a science teacher at Indian River High School, Dagsboro, is the winner of the 2005 Governor's Marine Science Teacher-of-the-Year-Award. The award was established by the University of Delaware Sea Grant College Program, in partnership with the Office of the Governor, to recognize an outstanding Delaware teacher who demonstrates a strong commitment to educating students about marine and coastal resources.

Mr. Fritchman, who has been teaching classes in biology and environmental science since 1989, has developed an innovative new curriculum based on the marine sciences. For example, he explains the concept of energy flow in ecosystems by using aquatic organisms and aquatic food webs and food chains. He also helped to design and construct an outdoor wetland area that he uses to give his students valuable hands-on experience. This area also provides him with a ready resource to demonstrate the concepts he is teaching.

In addition, Fritchman, along with his fellow teacher Kevin Cordrey, helped establish an aquaculture program at Indian River High School in which the students cultivated and sold more than 100 rainbow trout. Fritchman and Cordrey designed and built a "river simulation" pond, which mimics a natural freshwater pool found in streams or rivers of northern Pennsylvania or New York. Complete with a waterfall, the 14-foot-wide by 53-foot-long pond was 5 feet deep.

As this year's winner, Mr. Fritchman will receive an all-expense-paid trip to the National Science Teachers Association conference, April 6-9, 2006, in Anaheim California.

The call for nominations for next year's award will be issued in January. For more information, please contact the Sea Grant Marine Advisory Service at 645-4346.

DELAWARE TEACHER CENTER POLICY BOARD

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Kathleen Wilson

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Vickie Pendleton

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Jane Carey

LAKE FOREST
Debbie O'Brien

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