

**Visit the Museum of Natural History  
and Hayden Planetarium  
Science Teachers K-12  
April 24, 2004  
Leave Dover at 8:00 a.m. or  
Riverfront Arts Center at 9:15 a.m.  
Leave New York City at 6:00 p.m.  
2/5 Inservice Credit**

Take this opportunity to visit the 42 exhibition halls and the new Rose Center for Earth and Space featuring the Hayden Planetarium. The new Hayden Planetarium is unlike any other such facility in the world. In the top half of the Hayden Sphere, the most technologically advanced Space Theater in existence will use advanced visual technology (including a customized, one-of-a-kind Zeiss Star Projector) to create shows of unparalleled sophistication, realism, and excitement. With this high-definition system, the Hayden Planetarium is the largest and most powerful virtual reality simulator in the world. The bottom half of the Hayden Sphere houses the Big Bang, where visitors will be transported to the beginning of time and space, experiencing a dramatic, multisensory re-creation of the first moments of the universe. From here, visitors continue on an awe-inspiring journey that chronicles the evolution of the universe by following the Harriet and Robert Heilbrunn Cosmic Pathway — a sloping walkway that takes them through 13 billion years of cosmic evolution. This incredible institution brings all aspects of the natural sciences to life. Continuing attractions include the Natural Science Center offering an introduction to plants, animals, and rocks in New York City. The planetarium offers a wealth of information on the stars. Besides the wonderful exhibits to see and touch - a huge meteor, scales that tell you what your weight would be on other planets, and much, much more. We will participate in a special *Highlights Tour*. Bus transportation, admission to the museum and special tour expenses are covered by the Delaware Teacher Center.

**Museum of Natural History and Hayden Planetarium  
Registration Form #6103  
(Please Print)**

Name: \_\_\_\_\_  
School: \_\_\_\_\_  
School Phone: \_\_\_\_\_  
Home Phone: \_\_\_\_\_  
E-mail: \_\_\_\_\_

**Please send this completed form with a check for \$20.00 made payable to the Delaware Art Museum to:**

Ann Ciampa  
Delaware Teacher Center  
512 North duPont Highway  
Dover, Delaware 19901

This check will hold your seat on the bus and will be returned to you upon completion of the field experience at the museum. More details will be mailed to you upon receipt of your registration. The cost for non-teachers is \$40.00 and the check is not returned.

Congratulations to **Rachel Wood, Education Associate, Science and Environmental Education** and **Harry Dillner, Education Specialist, Van Project** on their retirement.

Congratulations to **Debbie Greenstone, Brandywine School District**, on receiving the **Presidential Award for Excellence in Science Teaching**.

Congratulations to **Kelli Martin** on being promoted to the position of **Education Associate, Science and Environmental Education**.

Congratulations to **Beenu Gupta** of **The Charter School of Wilmington** for coaching the first place team at the Senior High Olympiad.

Congratulations to **Tom and Jill Hounsell** of **H. B. duPont Middle School** for coaching the first place team at the Junior High Olympiad.

These two teams will be representing the state of Delaware at the National Science Olympiad at Juniata College in Huntingdon, Pennsylvania on May 21 and 22, 2004.



**Middle School Professional Workshop  
in Ocean Exploration  
July 11 – 17, 2004**

Ocean scientists are deploying high tech ocean observation systems along our coasts and want to share the real time data and observations with your middle school students. Ocean conditions are what determine our weather and make weather forecasting a science. Oceanographers are looking for good teachers who want to bring real inquiry learning into their classroom. They want to pay YOU \$1000.00 plus room and board for you to attend professional development workshops centering on using real time data from their observation experiments and then field test some of their curricular materials. The workshop will be held at Horn Point Lab in Cambridge, MD. For specific details and an application form, go to <http://www.macosee.net/application2004/>.

The application deadline is April 30, 2004.

### In This Issue

Presidential Awards.....	2
Cairns' Corner.....	3 & 4
Summer Opportunities.....	5 & 6
Teacher Resources.....	7
Education News.....	8
Astrobits.....	9

**Presidential Awards for Excellence in Mathematics and  
Science Teaching**

This is the twenty-first year for the Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST). Delaware has had twenty-one national awardees at the secondary level and twelve national awardees at the elementary level. On November 4, 2003 we honored the three state secondary science finalists, Debra Lee Greenstone, Brandywine School District, Paula Henderson, Christina School District, and Jennifer Paysse Rosen, Laurel School District. This year's national awardee received \$ 10,000 to use for professional or program development and an all expenses paid week in Washington, DC. The week was jam packed with activities which ranged from fun to elegant. The State Department Dinner, White House Tour and meeting with the President or First Lady, and Cruise on the Potomac were some of the highlights. But most of all PAEMST winners talk about the networking, sharing ideas, and new friendships as the most valuable experience.

The National Science Foundation under the auspices of the President of the United States established this award in 1983. The award was for outstanding secondary science and math teachers, grades 7-12, until 1990 when an elementary award was added to cover grades K-6. The national winners received \$7500 and the two runners-up in each category received \$750 until the 2003 award.

With the 2003 awards the secondary and elementary categories were split and will be awarded on an alternating basis every other year for either secondary or elementary teachers. For 2003 the Delaware Foundation for Science and Mathematics Education, with a generous gift from Sylvia and Jack Colette, awarded \$250 to each runner up in science and mathematics.

The recruitment for elementary candidates for the 2004 award was launched at the 2003 State PAEMST banquet. Elementary teachers, grade K-6, who have been teaching at least five years and exhibit excellent teaching skills in science are eligible. All candidates for the award must be nominated by a colleague, student, parent, etc. Nomination forms and applications for the award can be found on the internet at [www.nsf.gov/pa](http://www.nsf.gov/pa). The completed application along with five copies and a video must be postmarked or hand delivered by May 3, 2004 to the John W. Colette Educational Resource Center, 655 Glenwood Ave., Smyrna, DE 19977. c/o Sandy Wolford.

As of this date we have received fifteen nominations for the 2004 elementary award. We encourage teachers to nominate colleagues so we will have a quality pool of candidates to choose from for the 2004 Presidential Award for Excellence in Mathematics and Science Teaching. We want to send our best to Washington, DC in March 2005 to receive this honor.

#### Delaware Presidential Award Recipients

1983	Verna Price
1984	Harry Dillner
1985	Robert Lewis
1986	Edward Malin
1987	Marge Christoph

1988	Jean Harder
1989	Ellis Underkoffler
1990	Elementary: Cindy Dean Secondary: Peter Parlett
1991	Elementary: Renee O'Leary Secondary: John Yanaitis
1992	Elementary: Jeff Feidler Secondary: Kathy Melvin
1993	Elementary: Ramona Philhower Secondary: Kathryn Hopkins
1994	Elementary: Jane Carey Secondary: Paul Pomeroy
1995	Elementary: Doris Morris Secondary: Robert H. Gross Jr.
1996	Elementary: Linda Willey-Impagliazzo Secondary: Thomas S. Hounsell
1997	Elementary: Tanya N. Marcinkewicz Secondary: Thomas E. Manerchia
1998	Elementary: Gina M. Valania Secondary: Lyn Newsom
1999	Elementary: Karon Owen Massado Secondary: Jillann Cusick Hounsell
2000	Secondary: Michelle Kutch
2001	Elementary: Cynthia Pochomis Secondary: Jonathan Sypher
2002	Elementary: Jodi Green Secondary: David Stover
2003	Secondary: Debra Lee Greenstone



#### NSF Funded Summer Graduate Program for Science Teachers

Arizona State University in Tempe invites high school physics, chemistry, and physical science teachers nationwide to enroll in summer graduate courses in physics pedagogy, interdisciplinary science, and contemporary physics. Modeling Workshops are included. The program can lead to a Master of Natural Science degree. A NSF grant provides stipends, some free tuition, and free housing. Families are welcome!

E-mail	<a href="mailto:Jane.Jackson@asu.edu">Jane.Jackson@asu.edu</a> ,	or	visit
	<a href="http://modeling.asu.edu">http://modeling.asu.edu</a>		

**CAIRN'S CORNER** Scientists at MIT have reportedly announced that they have discovered a new species of weevil that feeds solely on cotton fibers found in men's shorts. The researchers have no idea where the species originated, and are appealing to the general public, as well as the rest of the scientific community for any information that would help to identify the insect. They are anxious to identify that weevil that lurks in the shorts of men!

I do need to tell you a short story about “how” the Science Olympiad helped me and others at Dover High School do a little traveling. During the fall of 1976, I had asked my principal and a good friend, Pat Lynn, for money to attend a Chem. Ed conference that was to be held at the University of Waterloo in the summer of 1977. I wanted to give him plenty of time to squirrel the money away.

With a very sad face he informed me that there was no money and there would be no money from the school district for travel. Budgets were tight and he had already had a 10% cut and was expecting another round of cuts. I asked him to keep me in mind should anything open up. He agreed, but was not very positive!

That might have been the end of the story except for the fact that I walked into the teachers lounge in March and another friend was describing a wild weekend that he had just had in Atlantic City. (This was long before gambling in AC.) He had just returned from a basketball clinic. He bragged that he had not attended one session, but that he had been to every bar and strip joint in town and wasn’t sober until he returned home. I was outraged and charged down to the principal’s office in a flash. I walked by the secretary and into his private office and slammed the door. I wanted an explanation! He, matter of factly, said “that it was school district policy that coaches who put their reputation on the line every Tuesday and Friday are special people and further, coaches of all other sports get similar opportunities to travel on district funds to attend clinics.” He also said, “What they do when they get to the clinic there is none of my business.” I was asked to leave his office! I did, but I really resented the situation.

I now fast forward to the last Saturday in April of 1977. That was the date of the first Science Olympiad. As fate would have it I did not have my car at Del State that day. My wife had dropped me off early that morning. Thus I had to ask one of my students if they would give me a lift home. In fact, I mentioned that we might want to make a stop on the way for I was sure that Mr. Lynn would like to see the trophy! As it turned out the kids were more excited about winning the state championship than I was and they all jumped into cars and we had a caravan of students and parents tooting their horns and generally celebrating being number one! The trophy was a large silver cup that said, “State of Delaware Science Champions”.

The principal knew something was happening long before he saw us. He was working in the yard and heard the horns. We pulled up and he walked to the street. The students handed him the trophy. He congratulated the kids, shook hands with excited parents, and then said to me, “I guess that you’ll be wanting to talk about that trip to the chemistry conference. I’ll be in my office by 7:15 AM on Monday morning. Bring me an estimate of the cost.”

I’m told that the Board of Education changed their “policy” to include any teacher/coach that “put their reputation on the line” would be entitled to attend a workshop, clinic, or staff development project at district expense. The policy is in effect as far as I know twenty-five years later!

But I digress...

Doug Macbeth led the first two Science Olympiads in Delaware. Doug left DPI in the fall of 1978 for an assistant superintendent of school’s job in Hamburg, PA. The next spring I took his place at the Department and I led the Olympiad for the next 12-14 years. When it began, all the money to run the competition came from donations that Doug got, primarily from DuPont. You may recall that in addition to medals, trophies were awarded to first place in each event and a

traveling trophy was given to the winning team. Also cash awards were made to the school science department for equipment and supplies for placing first in each of our events.

The Science Olympiad was sold to the State Board of Education as a public high school competition. However the leadership at DPI was never “happy” with Doug’s solicitation of state businesses. After Doug left; no more soliciting was permitted by DPI; but they did provide funds from a high school funding line in the State budget. State money cannot be expended except in specific ways. It took several years to convince the State Board of Education to allow the Olympiad to charge a registration fee. The fee permitted us to obey the law and permitted the addition of non-public high schools. It also permitted us to begin to plan an Olympiad competition for Junior High School students.

The first Junior High School Science Olympiad was held on March 26, 1983. It was not called Science Olympiad but rather it was known as the Science Olympics. It held that name until 1985 when the national tournament was organized.

For the first several years, we did things quite differently from how it is done today. The organization for 1983 was as:

9 <sup>th</sup> Grade only	8 <sup>th</sup> Grade only	7 <sup>th</sup> Grade only
Science Bowl(4)	Science Bowl(4)	Science Bowl(4)
Obstacle Course(4)	Obstacle Course(4)	Obstacle Course(4)
Password(2)	Password(2)	Password(2)
Measurement(2)	Measurement(2)	Measurement(2)
Super Magnet(2)	Crystal Growing(2)	Name Organism(2)
Glurch(2)	Rocks to Riches(2)	Biomass(2)
Periodic Table(2)	Kite Flying(5)	Barge(2)
Bottle Music(5)	Map Making(2)	Finger Printing(2)

Each grade level competed separately!

We added the following competitions for 1984.

Safety Poster (2)	Tea Making (2)	Bones (1)
Black Box (2)	Facts in Five (1)	Scavenger Hunt (2)
Electricity (2)	Astronomy (1)	Using a Key (2)
Puzzler (1)	Puzzler (1)	Biotrivia (2)

The numbers in parenthesis are the number of students required for each competition. Science Bowl and Password were played three times with different competitors for each round. Thus your four Science Bowl ninth grade competitors would be tied up from 8:30 AM until 10:00 AM. Scores for these two events were summed to determine the winners. The Science Bowl supervisors thus would be tied up all day with three rounds for 9<sup>th</sup> grade, three rounds for 8<sup>th</sup> grade and three rounds for 7<sup>th</sup> grade.

No overall winning team was named in the first year! In year two we added a school trophy for 1<sup>st</sup> place in New Castle County, 1<sup>st</sup> place in Kent County, and 1<sup>st</sup> place in Sussex County.

Registration fees were \$20 and \$25 in each of the first two years respectively. Junior High Schools were permitted one team only. The following teams participated during the first year:

New Castle County	Kent County	Sussex County
Conrad	Caesar Rodney	Laurel
Gauger	Central Dover	Lewes
George Read	Chipman	Milford
H. B. DuPont	Seaford	Selbyville
Hanby	William Henry	
Middletown		
Ogletown		
Shue		
Skyline		

Talley

Each and every junior high school got at least one set of medals. Many thought that one team might take all the medals. This was not true. The medals were well distributed across all three counties and across the schools within the counties. We did a count of medals at the time. We did not take into consideration whether they were for 1<sup>st</sup>, 2<sup>nd</sup>, or 3<sup>rd</sup> place. So in terms of total medals Gauger garnered the most with 29, followed by George Read with 23, and Lewes had 20.

Two prawns, in the tropical waters of the Caribbean, were swimming around in the sea. Justin and Christian were very happy except that larger fish that patrolled the reef were constantly harassing them.

One day Justin announced that he wished that he was a shark; then they wouldn't have to be concerned about being eaten. As Justin had it firmly in his mind to become a predator, a mysterious cod appears and says, "Your wish is granted," and lo and behold, Justin turned into a shark. Horrified, Christian immediately swam away afraid of being eaten by his old mate.

Time went on and Justin found himself becoming bored and lonely as a shark. All his old mates simply swam away when Justin came close to them. Justin didn't realize that his new menacing appearance was the cause of his sad plight. While swimming alone one day, he sees the mysterious cod again and can't believe his luck. Justin figured that the fish could change him back into a prawn.

He begs the cod to change him back so, lo and behold; he is turned into a tiny prawn again. With tears of joy in his tiny little eyes, Justin swam back to his friends and brought them all a cocktail. Looking around the old reef, he searched for his old pal. "Where's Christian," he asked. "He's at home, distraught that his old friend changed sides to the enemy and became a shark," was the reply.

Eager to put things right again and end the mutual pain and torture, he set off to Christian's house. As he opened the coral gate, memories came flooding back.

He banged on the door and shouted, "It's me Justin, your old pal, come out and see me again."

Christian replied, "No way man, you'll eat me. You're a shark, the enemy, and I'll not be tricked."

Justin cried back, "No, I'm not. That was the old me. I've changed. I've found Cod, I'm a prawn again, Christian!"

#### **Marine Science Nominations Sought**

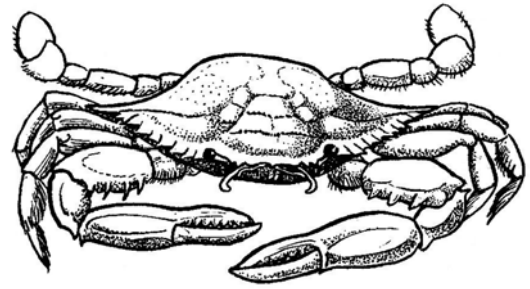
The University of Delaware's Sea Grant College Program is accepting nominations for the 2004 Governor's Marine Science Teacher of the Year Award for teachers who educate students on the state's ocean and coastal resources.

The program, with the Governor's office, set up the award in 2001 for teachers committed to marine and aquatic science education. Creativity, innovation, quality and impact of activities will be considered.

The winner will get an all-expenses paid trip to the National Marine Educators Association conference in July in Florida.

Nominations must be postmarked by April 12.

For more information, call 645-4253 or visit <http://www.ocean.udel.edu/seagrant>.



#### **Summer Science Teaching Opportunity Soil, Water, Pollution, Power**

The Christina School District is collaborating with the Delaware Nature Society and the Hagley Museum to create a 12 day science program for students going into the ninth grade. Using the overarching theme of energy in stream systems, this program will prepare participating students to meet the science curriculum standards at the ninth grade level.

We are looking for two teachers to help plan the program this spring and run it during June and early July. Both teachers will work with the staff at Ashland Nature Center and Hagley Museum to develop a curriculum that focuses on physical science and technology. Teachers will be paid the standard pay for summer school preparation and teaching.

Applications are due by April 15, 2004. Please send a cover letter, resume, and references. For more information, interested teachers should contact one of the persons below:

Joe Sebastiani  
Delaware Nature Society  
P.O. Box 700  
Hockessin, DE 19707  
302-239-2334 x 122  
[joe@dnsashland.org](mailto:joe@dnsashland.org)

Lisa Marcinkowski  
Hagley Museum & Library  
P.O. Box 3630  
Wilmington, DE 19807  
302-658-2400 x 285  
[Lmmarcin@udel.edu](mailto:Lmmarcin@udel.edu)

#### **Invasive Species Workshop The Good, the Bad and the Prolific**

A workshop for K-12 teachers will be offered on this worldwide problem at the College of Marine Studies in Lewes, Delaware on June 22, 23 and 24, 2004. The world as we know it is changing, and not from just politics. From starlings to zebra mussels to comb jellies and the Nile virus, the associated costs are in the billions and the environmental impacts of invasive species are enormous. We will have lots of materials to support your new walk on the wildside. We have experts from around the area lined up to give you the information on what has changed and what will change. Call the Delaware Teacher Center at 736-6723 or 800-282-8770 to register for workshop number 6074B.

#### **Brazil-Adventures in Ecology and Education**

Explore the Atlantic Rainforest, the Pantanal and Sao Paulo during July 17-31, 2004. Discover museums in the heart of Sao Paulo; then find yourself in the Pantanal, engaged in field work in the habitat of the largest snakes and parrots in South America. Compare ecosystems and educational systems as you learn about Brazilian education. Develop curriculum to use with your students. Brazilian and American educators, as well as those from all countries, may participate. Graduate, CEU and EEU credits will be available. This program is offered by SCI-LINK at North Carolina State University in cooperation with Sangari Institute in

Brazil. The cost is \$2450. To view a complete schedule and program details go to [http://www.ncsu.edu/scilink/brazil\\_workshop.html](http://www.ncsu.edu/scilink/brazil_workshop.html).

### Earthwatch Institute

Earthwatch provides K-12 private and public school educators with funding to join conservation research expeditions across the globe, during which they gain field science experiences that they can share with their students. Fellows join a one- to three-week expedition with a team of diverse volunteers working alongside renowned scientists. Projects range in discipline from archeology to zoology. Applications are accepted on a rolling basis. Earthwatch Institute is the world's oldest, largest, and most respected organization directly involving the public in scientific field research. This year, Earthwatch will support more than 130 expeditions in 45 countries, and will send some 4,000 members of the public into the field to work side-by-side with leading scientists. Log on to <http://www.earthwatch.org/> to learn more. Click on 'sign on to an expedition today' near the top of the right column to learn about current opportunities. <http://www.earthwatch.org/expedselect.html> will take you directly to the expedition page.

### Investigating Solids, Liquids and Gases with TOYS Exploring Energy with TOYS

In this summer physical science workshop for teachers of grades 6-9, participants will receive materials and curriculum to enhance activity-based, discovery-oriented science instruction. Teachers will work with inexpensive materials and toys, such as mystery eggs, Darda™ tracks and cars, polymers, plastics, drinking birds, heat solution packs, and density tubes. Strong emphasis will be placed on the National Science Education Standards and assessment. Mathematical applications will be included as often as possible. Two semester credit hours may be earned. The program will take place June 21-25, 2004 on the Colorado School of Mines campus in Golden, CO. Cost-\$300 (plus an additional \$190 if enrolling for credit). Application deadline-May 14, 2004. To obtain an application, e-mail [sberger@mines.edu](mailto:sberger@mines.edu) or call Sue Anne Berger at 303.674.7386.

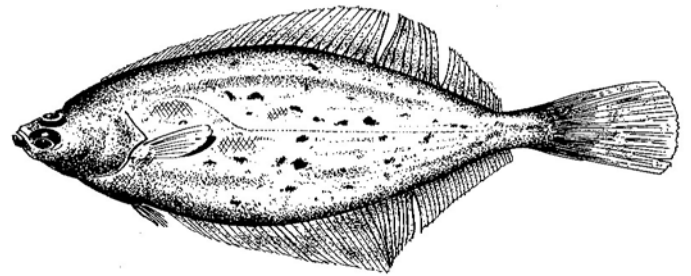
### Science and Art: A Summer Program for K-6 Teachers

This class will demonstrate how a classroom teacher and art teachers can combine science and art. Activities include wax crayons, chromatography, papermaking, PolyShrink™, kaleidoscopes, candy and crystals, polymers, hot air balloons, tracks and cars, Speedway Spiders, paper marbling, and density tubes. Teachers will explore scientific background, perform hands-on science and art activities, acquire materials for use in their classrooms, and receive an extensive literature resource list. Two semester credit hours may be earned. The program will take place on the Colorado School of Mines campus in Golden, CO, during June 14-18, 2004. Cost-\$200 (plus an extra \$190 for credit). Application deadline-May 14, 2004. To obtain an application, e-mail [sberger@mines.edu](mailto:sberger@mines.edu) or call Sue Anne Berger at 303.674.7386.

### National Association of Geoscience Teachers Eastern Section Spring Meeting

### Geology: The Interconnected Science Rutgers University June 4 – 6, 2004 Newark, NJ

Our theme this year is Geology: The Interconnected Science. Although most of the field trips will still emphasize great geologic locations, much of the rest of the program will place geology in an interdisciplinary role. A centerpiece of this conference is the "Dynamic Earth" display at our co-sponsor, the Newark Museum. The keynote address is "Voyage into the Abyss" by Dr. Richard Lutz, Rutgers University – New Brunswick. He is known for his work appearing in the new IMAX movie "Volcanoes of the Deep" now showing at many museums and theaters. Go to <http://geology2.rutgers.edu/conference/conference.htm> for additional information.



## College of the Atlantic

The College of the Atlantic, Bar Harbor, Maine is offering graduate work this summer in oceanography, geology, field botany and creative writing, astronomy, whales, porpoises, seals and more. Dr. Hank Bouchelle of the Planetarium in the Colonial School District is teaching *Introduction to Astronomy* from July 11 -24, 2004 and *Astronomy from a Portable Planetarium* from July 25 – August 7, 2004. Check the website at [www.coa.edu/summer/sumworkshops/index.html](http://www.coa.edu/summer/sumworkshops/index.html) or call Jean Boddy at (800) 597-9500 for a brochure.

### Advanced Placement Summer Institute Lewes, Delaware Summer of 2004 [www.lewesap.com](http://www.lewesap.com)

#### THE PROGRAM

The four-day intensive program is designed to provide teachers with the opportunity to understand the challenges of learning at the AP level. The experienced AP instructors focus on the central issues of: program development, curriculum, technology, exam preparation and "best practices." Please visit our website at [www.lewesap.com](http://www.lewesap.com).

Participants must attend all sessions to be awarded the 30-hour professional development certificate. This is a College Board requirement.

Participants are welcome to bring their families to the beautiful Lewes/Rehoboth Beach environment. However, only participants are permitted in the classroom and institute facilities.

#### DAILY SCHEDULE

The Institute runs for four full days Monday through Thursday from 7:00 a.m. until 3:45 p.m. A continental breakfast and lunch will be served daily. On Monday, at 7:20, there will be a brief orientation.

#### CANCELLATION POLICY

All cancellations must be received in writing by mail or fax (no e-mails or phone calls accepted). Full refunds minus a \$25 processing fee will be made for cancellations received prior to June 30. Refund requests made after that time will not be honored, and participant or sponsoring organization will be responsible for the fee. Anyone who is registered but cannot attend may send a substitute.

We reserve the right to cancel any course no later than July 10, due to insufficient enrollment.

#### LATE CHARGES

Registration received after June 23<sup>rd</sup>: add \$50.00 late fee (if classroom space is available). All purchase orders must be paid in full by July 9. Unless arrangements are made with the Institute for an additional late fee of \$50, the registration will be cancelled.

#### INSTITUTE FACULTY

The faculty has been selected for their teaching expertise, creativity, innovations in teaching and experience with the AP curriculum.

All faculty members are endorsed and certified by the Middle Atlantic Regional Office of The College Board and have demonstrated a commitment to excellence that is second to none.

#### COURSE DESCRIPTIONS

Available at <http://www.lewesap.com/program.php>. Click on the course name for a description.

### Registration Form

#### Virgen Conference Center

##### July 19, 20, 21 & 22

- Calculus AB
- English Language
- European History
- Spanish Language
- Statistics

##### August 2, 3, 4 & 5

- English Literature
- French Language
- Government & U.S. Politics
- Psychology
- U.S. History
- World History

#### Cape Henlopen High School

##### August 3, 4, 5 & 6

- Biology
- Chemistry
- Economics
- Environmental Science
- Physics

#### REGISTRATION INFORMATION & DEADLINE

The registration fee is \$799.

The fee includes 30 hours of instruction, a 30 hour professional development certificate, AP College Board publications, textbooks, supplement materials, and catered continental breakfast and lunch daily.

June 23 - Final date for regular registration

June 24 - Registration received after June 23<sup>rd</sup>: add \$50.00 late fee (if classroom space is available).

**A letter of confirmation will be sent  
when payment is received.**

Completed registration forms and checks, money orders, or purchase orders made payable to: Lewes AP Summer Institute  
Do not send a payment without a completed registration form.

#### RETURN REGISTRATION FORM & PAYMENT TO:

Dr. Wilson Frampton  
Director, Lewes AP Summer Institute  
1608 Wendy Way  
Boothwyn, PA 19061

#### PARTICIPANT INFORMATION

NAME: \_\_\_\_\_

HOME ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_ ZIP: \_\_\_\_\_

HOME PHONE: \_\_\_\_\_

EMAIL: \_\_\_\_\_

SCHOOL NAME: \_\_\_\_\_

SPECIAL DIETARY NEEDS: \_\_\_\_\_

**REGISTRATION AND PAYMENT AVAILABLE ONLINE  
AT [WWW.LEWESAP.COM](http://WWW.LEWESAP.COM)  
(Credit cards accepted online)  
Spring 2004 Junior Gardener Program**

New Castle County Master Gardeners have announced their Spring 2004 Junior Gardener Program for presentation in area schools. Scheduled to run from March 29 to May 14, the program engages students in grades K-4 in a variety of hands-on horticultural learning activities.

This spring, presentations cover bees, butterflies, seeds, trees and soils among other topics. Each student receives a personalized Junior Gardener certificate to take home. A classroom certificate is also awarded. Since its launch in Spring 2001, the program—designed to enhance Delaware state science standards—has reached over 14,000 students. A brochure detailing the program as well as a booking form are available by calling 831-COOP or contacting the organization by e-mail [ncc-ext@udel.edu](mailto:ncc-ext@udel.edu). Most of the programs are free of charge. Some have nominal per student fees to cover costs of materials and supplies.

New Castle County Master Gardeners are trained volunteers engaged in outreach educational activities, acting as an adjunct to Delaware Cooperative Extension, University of Delaware.



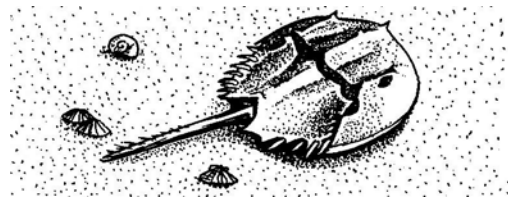
### From Stargazers to Starships

This is the title of an extensive educational resource on the worldwide web, on elementary astronomy, Newtonian mechanics, the sun (also weather), and spaceflight. At the high school level, it includes a course on the required algebra and trig, 42 lesson plans, a timeline, glossary, problems and translations. It was created by Dr. David P. Stern, a physicist retired from Goddard Space Flight Center (GSFC) of NASA.

The GSFC Office of Education has assembled a kit for teachers, containing a disk with all above files, as well as related extended expositions on the exploration of magnetic fields in space and on Earth. The kit also includes printed instructions for teachers, a copy of the article “Using Space to teach Physics” and paper cut-outs of a sundial and a magnetosphere model, both also found on the web sites.

Please look up the home page of “Stargazers” (you may replace [www.phy6.org](http://www.phy6.org) with [pwg.gsfc.nasa.gov](http://pwg.gsfc.nasa.gov)) at <http://www.phy6.org/stargaze/Sintro.htm> and/or a general introduction to all above resources <http://www.phy6.org/prospect.htm>

If you need the kit, to use in your classroom, please contact: Vern Smith, Aerospace Education Specialist, Code 130.9, NASA/GSFC Building 28, Room N144, Greenbelt, MD 20771, Phone: 301 286-1977, Fax: 301 286-1655 email: [vern@aesp.nasa.okstate.edu](mailto:vern@aesp.nasa.okstate.edu).



### UD Sea Grant College Program Publishes New Bulletin on the Horseshoe Crab

If you were asked to determine which animal is most linked to human health and well-being, you may be surprised to find that the American horseshoe crab, *Limulus polyphemus*, ranks near the top. In fact, *Limulus polyphemus* is responsible for the great strides that medical science has made in eye research, development of surgical sutures and wound dressings, and detection of bacterial contamination in drugs.

More information about this strange-looking critter — from anatomy to habitat to fun facts — can be found in the newly released, full-color bulletin *The Horseshoe Crab: A Creature That Crawled Out of the Past*, published by the University of Delaware Sea Grant College Program. Also included is information on how this six-page publication can be used in the classroom to meet Delaware state and national science education standards.

For a free copy of the bulletin, please send your request in writing to the University of Delaware, Marine Public Education Office, 222 South Chapel Street, Room 103, Newark, Delaware 19716-3530, or e-mail [MarineCom@udel.edu](mailto:MarineCom@udel.edu). Please be sure to include your name and complete mailing address.

### University of Delaware College of Marine Studies Sea Grant College Program Marine Tours

#### Summer Tours:

Free tours of the college’s research facilities at the Hugh R. Sharp Campus in Lewes will be held every Friday during June, July, and August, starting at 10:30 a.m. Led by trained volunteers from the Lewes area, these tours showcase fascinating research projects under way at the college, from transforming marsh plants into food and forage crops, to determining how the Pompeii worm can thrive in the scalding-hot water at hydrothermal vents deep in the ocean. Since the tour program began 12 years ago, more than 13,000 people have visited our labs. Call 645-4346 for more information or to make a reservation.

#### Student Tours:

Free tours for middle- and high-school classes of five or more people, Monday through Friday, between 10:00 a.m. and 4:00 p.m. may also be scheduled. Requests should be made at least a week in advance by calling the College of Marine Studies at (302) 645-4346, by e-mailing Jean Boyer at [jmboyer@udel.edu](mailto:jmboyer@udel.edu), or by writing to the Sea Grant Marine Advisory Service, University of Delaware, College of Marine Studies, 700 Pilottown Road, Lewes, DE 19958-1298. The Hugh R. Sharp Campus is accessible to people with disabilities.

The American Chemical Society National Chemistry Test will be held on April 19, 2004 at St. Mark's High School.

The American Chemical Society State Chemistry Test will be held on April 29, 2004 at McKean High School in New Castle County and Dover High School in Kent County. The test will start at 8:00 a.m. and end at 10:00 a.m. Three awards will be given in New Castle County, one award in Kent and one in Sussex County. The winners will be invited to the May dinner meeting of the Delaware ACS Section where the awards will be presented. Please email Marge Christoph at [mchristoph@stmarkshs.net](mailto:mchristoph@stmarkshs.net), or call (302) 738-3300 ext 3114 if you plan to send students to either event. No programmable calculators are allowed for either test.

### Elementary Olympiad

The Delaware Section of the American Chemical Society is sponsoring an elementary Olympiad for public school students in grades 4, 5 and 6 on May 8, 2004 at the Charter School of Wilmington, 100 North duPont Road, Wilmington.

There will be four sessions beginning at 9:00 a.m. and ending at 12:30 p.m. Rules can be found on St. Mark's website at [www.stmarkshs.net/stmarks/Activities/Elementrysciolympiad/pages/Schedules\\_Rules.html](http://www.stmarkshs.net/stmarks/Activities/Elementrysciolympiad/pages/Schedules_Rules.html). Medals will be awarded for first, second and third place in each event.

Each team will consist of six students from either the 4<sup>th</sup>, 5<sup>th</sup> or 6<sup>th</sup> grade. We will accept 24 teams at each grade level. Each school will be allowed one team per grade. If there are still openings on April 1, we will accept a second team until all slots are filled. The cost is \$6.00 per team. Checks should be made payable to the Delaware Section of the American Chemical Society and sent to Marge Christoph at St. Mark's High School, Pike Creek Road, Wilmington, DE 19808.

### Websites to Explore

General Motors:

<http://www.gm.com/company/gmability/>

Toshiba America Foundation:

<http://www.toshiba.com/taf/>

Lemelson-MIT InvenTeams:

<http://mit.edu/invent/www/InvenTeam/>

As many as fifteen grants of up to \$10,000 each will be awarded to teams (the 2005 InvenTeams) nationwide for the 2004-2005 academic year.

The initial application packet is due Friday, May 7, 2004 and must be submitted by a high school science, mathematics or technology teacher.

DTS website:

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

NSTA and CBC have released the 2003 List of Outstanding Science Books for K-12 Students. Read it online at [www.nsta.org/ostbs](http://www.nsta.org/ostbs).

### Ph.D. in Science Education at Indiana University

Generous financial aid for individuals' interested in pursuing a Ph.D. in Science Education at Indiana University-Bloomington. Work would be full time and at the IU-Bloomington campus. Contact Dr. William Boone, [wboone@indiana.edu](mailto:wboone@indiana.edu), for more information.

### The Geology and Flora of Delaware's Piedmont

### Delaware Native Plant Society's

#### 6th Annual Meeting

May 22, 2004

The Delaware Nature Society (DNS), at Ashland Nature Center, will host our Annual Meeting this year.

Location: The Ashland Nature Center is located off Barley Mill Road at the intersection of Brackenville Road. From Route 41 in Hockessin take Brackenville Road north to DNS, about two miles, look for entrance to nature center on left side of road just before Barley Mill Road.

#### Schedule of Events

10:00 - 10:15 a.m. Opening remarks, Keith Clancy, President, Delaware Native Plant Society

10:15 - 11:00 a.m. Lecture & Keynote Speaker: "Delaware Piedmont Geology: Just What Rocks Are Holding Up Them-Thar Hills?," presented by Sandy Schenck, Director, Earth Science Information Center, Delaware Geological Survey

11:00 - 11:15 a.m. Break

11:15 - 12:00 p.m. "A Piedmont Plant Challenge." A slide presentation whereby premier botanists Janet Ebert and Jack Holt will be showing a series of unknown plants and will rely on their knowledge and experience to (1) identify the plant on the screen and then (2) to discuss what they know about each species (e.g., its distribution, ecology, other information).

12:00 - 1:00 p.m. Lunch (We will provide refreshments and will take orders for sandwiches.)

1:00 - 1:30 p.m. Business meeting. A very short business meeting will take place at this time.

1:30 - 4:00 pm. Field Trip - Janet Ebert & Jack Holt will lead us on a field trip of the diverse piedmont habitats along the nearby Red Clay Creek at Ashland.

**To register or for more information please email us at [dnp@delawarenativeplants.org](mailto:dnp@delawarenativeplants.org) or call 302-674-5187.**

### Ecological and Cultural Workshop for Educators: Field Studies in the Amazon Rainforest and Machu Picchu

Teachers can participate in an eleven day adventure from July 25 to August 4 to visit the Peruvian Amazon Rainforest and Machu Picchu in the Andes Mountains to learn more about the people, plants and animals of these two regions. Teachers will take informative hikes and do hands-on lessons that will include topics such as soil, bats (adaptations), ants (pheromones), bees (pollinators), species relationships, integrated pest management, agriculture, and aquatics. Time will be allocated to meet local people, visit a school, and discuss development challenges and conservation issues. At Machu Picchu Historical Society, participants will visit the world's largest orchid garden, explore the Inca ruins, and maybe catch a glimpse of the spectacled bear. Three academic credits are available through West Chester University of Pennsylvania. Deposit and registration deadline-April 20, 2004. Call the ACEER Foundation at (610) 738-0477, or visit [www.aceer.org/](http://www.aceer.org/) for information and pricing.

### ASTROBITS: Spring 2004

For further details about information provided in ASTROBITS, call Dr. Stephanie Wright at 454-2432.

