

NOMSTA NEWS

VOLUME 6, ISSUE 1 MARCH 1, 2006

ANNUAL CONFERENCE REACHES NEW HEIGHTS

On Saturday January 28, 2006 history was made on the campus of Northeastern State University in Tahlequah, Oklahoma. In service and preservice teachers gathered together for the Fourth annual Northeastern Oklahoma Math and Science Teacher's Association annual meeting and conference. This years program was again centered around the National Aeronautics and Space Administration. NASA to most of us. In addition to our keynote speaker Dr. Angelo Casaburri, attendees were transported via satellite link to two different NASA facilities; Johnson Space Center in Houston, Texas and the Marshall Space Flight Cen-

ter in Huntsville, Alabama, where NASA employees took us on a virtual tour of the facilities and spoke on the education programs NASA offers to educational organizations. Imagine having your students ask questions of one of our astronauts aboard the International Space Station, and being able to witness and hear their response via interactive television. Or having a real live astronaut come to your classroom and challenge your students in any number of ways relating to them the realities of the space program to their world and to inspire them to look above and beyond and see themselves as scientists in space.



"What young person has not dreamed of exploring space, has not longed to be among those privileged few who have been set free from the bounds of earth?"

What young person has not dreamed of exploring space, has not longed to be among

SPECIAL POINTS OF INTEREST:

- *THE NOMSTA NASA CONNECTION*
- *Lesson Plans in Math and Science*
- *NSTA Student Chapter at NSU*
- *Certification Changes for Science Educators Initial Certification*

7-2=5, on January **27, 2007** plan on attending the **5th** Annual NOMSTA Conference

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LETTER FROM THE ELECT

By Teresa Kincannon

My heart is at NSU where I earned my BS in Elementary Education in the spring of 93. Since then I have continued to take courses mostly in Science and Science education. Currently I teach sixth grade general science at Lewis and Clark Middle School in Tulsa Pub-

lic Schools.

The MASTEP program has given me many opportunities to advance my career in Science Education. Since the summer of 2004 I have received materials for my classroom, stipends to keep me in graduate school, op-

portunities for science education conventions, and tuition paid for several of the classes in my graduate program. This May I will graduate with a Masters degree in Science Education which is made possible through the work
Continued on page 2



Dr. April Dean Adams Associate Professor of Science Education, Department of Natural Science, Northeastern State University

BUILDING ON A STRONG FOUNDATION

The existing and future members of NOMSTA owe far more than just their beginnings to a few dedicated and mostly under acknowledged Professors. First and foremost of those responsible for NOMSTA's existence is Dr. April Dean Adams. Dr. Adams collaborated in writing the grant request that was ultimately approved by the National Science Foundation establishing a program for building upon the education

of in-service teachers of mathematics and sciences, particularly those at the junior and middle school level. Many of whom had worked themselves into positions which were not within the focus of their formal education, but who, by newly adopted state legislation would have to prove through testing their knowledge of the subject matter.

Dr. Adams' team established a program to teach those

teachers providing them a stipend, course credit, tuition and funds available for purchase of resources and conference attendance, all designed to encourage and promote better teachers, and thus better teaching in our schools. Among those things Dr. Adams believed to be necessary for improving teachers was the establishment of a group or organization of those teachers, where Ideas, lesson

Continued Page 5

"NOMSTA IS QUITE AN IMPRESSIVE ORGANIZATION STIMULATING COLLABORATION OF MATH AND SCIENCE TEACHERS IN THIS AREA OF OUR STATE."

ELECT CONTINUED

By: Teresa Kincannon

of Dr. April Adams and others who gave many of us opportunities in the MASTEP program. Another benefit of this program created our Northeastern Oklahoma Math and Science Teachers Association. NOMSTA is quite an impressive organization stimulating collaboration of Math and Science teachers in this area of our state. Through the annual conven-

tions, hosting inspiring guests such as NASA, and encouraging communication between teachers, this organization boosts the morale among us all. I am honored and proud to be a leading part of NOMSTA this year.

Teresa Kincannon (pictured here) is the new President elect of NOMSTA.



Gavel passed to new NOMSTA Administrative Board

NEW SLATE OF OFFICERS / BOARD ELECTED

In the annual business meeting of NOMSTA, the following were elected to serve as officers for the 2006—2007 term:

- President Elect—Teresa Kincannon
- Secretary Treasurer—Carrie Steele
- Elementary Science Division Director—Timothy Smythe
- Elementary Math Division

- Director—Dawn Bowman
- High School Science Division Director—Debra Evans
- High School Math Division Director—Elizabeth Sonnenfeld

Continuing in their roles the following have graciously accepted yet another term on the NOMSTA board:
 President—Monica Shrum

- Webmaster—April Adams
- College Math—Deborah Carment
- College Science—Pamela Christol

This list of servants would not be complete without acknowledging the ongoing contributions of Monica Macklin, J. Wendell Wyatt and Mr. Adams. Hats-off to you, thank you.

NSU REINSTATES STUDENT CHAPTER OF NSTA

The National Science Teacher Association has re-instated Student Chapters for Pre-service Elementary students. According to the [NSTA Student Chapters web site](#), there are now 78 Student Chapters nationwide, and two of these Student Chapters are in Oklahoma- East Central University (ECU) in Ada and Northeastern State University (NSU) in Tahlequah and Broken Arrow. ECU recently participated in a National

Student Chapter ITV Meeting on November 10th. Students from ECU (Celeste Dibler, Paul Wilson, Paula Jones, and Michael Lindley) and students from other universities presented innovative ways to teach using toys. The next Student Chapter ITV meeting will be April 27, 2006. Two students from NSU (President Catherine Stallbories and Jennifer Gerber) will be attending the NSTA meeting in Anaheim and will present at

the Student Chapter Share a thon to be held April 6th. If you are a teacher or an administrator near these NSTA Student Chapters and would like to encourage our future science teachers please contact the chapter advisors, [Dr. Karen Williams](#) at ECU or [Dr. April Adams](#) at NSU, Tahlequah or [Dr. Pamela Christol](#) at NSU, Broken Arrow.



National Science Teachers Association

NSU and NSTA Reinstate Student Chapters

ANNUAL CONFERENCE CONTINUED

The impact that NASA has had on our lives today can hardly be measured. From our mattresses, to the ways in which we communicate, to the very food we eat, NASA has played a part. The impact they continue to make in the advancement of science is immeasurable but too often overlooked. I remember as a child each launch of those early Saturn rockets. I re-

member when "The Eagle has Landed." even the fear and sadness whenever something went wrong. I remember when the world watched in awe as we made "one giant leap for mankind." NASA was on every television and every boy and girl expected themselves to become an astronaut. That same eagerness and intense desire to learn and to be part of the explora-

tion of space and advancement of studies of our own world can easily be instilled in your students. They are instantly drawn to the excitement and adventure that hangs on every word and tale told by a NASA scientist, engineer or astronaut. These programs are available to you. If you are interested start the process at: www.nasa.gov.

"I REMEMBER WHEN THE WORLD WATCHED IN AWE AS WE MADE THAT ONE GIANT LEAP FOR MANKIND."

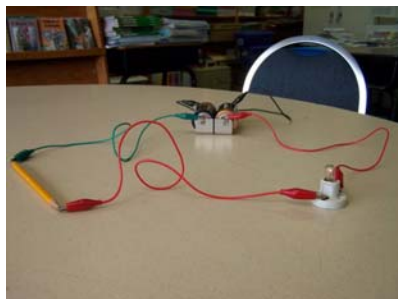
IS IT A CONDUCTOR OR AN INSULATOR?

An elementary or Middle school science project by Joe Smythe of Norwood, NOMSTA Elementary Science Division Director for 2006—2007.

Separate your class into groups of two or more.

The materials for each

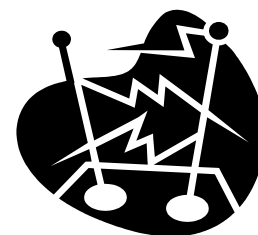
group include: Wire,



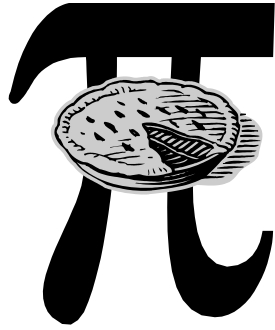
preferably with alligator

clips to clip on to the item you will be testing, a light bulb, batteries and materials to be tested.

The picture shows how to assemble the circuit.



Students have an electrifying experience with this lesson plan



CELEBRATE NATIONAL PI DAY

By: Elizabeth Sonnenfeld

March 14 (3.14) is National Pi day, incorporate this lesson plan to celebrate

Preparation: Ask parents to donate pies for the celebration. The best ones are purchased from a restaurant with whipped cream or meringue topping. Cut each pie into 6 pieces; each student gets one piece of pie.

Need:

- Rulers with centimeter markings
- Handout w/ questions
- Pencils
- Plates
- Napkins

Algebra 1 students – assume that the pie pieces are right triangular solids; therefore, the base is a triangle.

Algebra 2 and above – recognize that the pie pieces are sections of circles and calculate the area of the base and the volume using that information.

NOTE: students must take measurements of their piece of pie before they can eat it. As soon as they have their measurements, they are free to enjoy their pie as they complete the following questions.

Take the following measurements (in centimeters) BEFORE eating your pie!!

- Height _____
- Length _____
- Width at the widest point _____

Algebra 2 students and above, figure the arc _____

Make the following calculations; remember your units!

1. Area of base of your piece of pie _____
2. Height of piece of pie _____
3. Volume of piece of pie _____

4. Assuming that the whole pie cost \$8.99 plus tax, and the pie is cut into 6 pieces, what is the cost per piece of pie (ignore tax)? _____

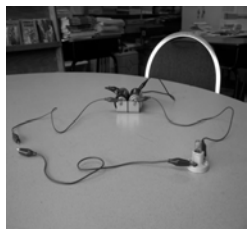
5. What is the price per cubic centimeter of pie? _____

6. If you order a piece of pie in a restaurant, it costs \$1.99 per piece. How much does the restaurant collect (in \$) for a whole pie? _____

7. What is the price per cubic centimeter of pie ordered by the slice in a restaurant? _____

Does the restaurant make more selling whole pies or pieces of pie, by the slice? _____ Explain: _____

INVOLVE PARENTS IN THEIR STUDENTS LEARNING, HAVE THEM BAKE PIES FOR NATIONAL PI DAY 3.14(OFF COURSE)



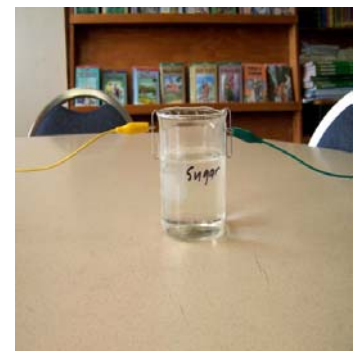
Testing Conductivity of everyday items is challenging and educational

INSULATOR OR CONDUCTOR? CONTINUED FROM PAGE 3

Make a list of objects to test and see if electricity can pass through them or not. Be sure to have the students make predictions before testing the item. You can also test for the conductivity of dissolved solutes by making electrodes out of paper clips (picture to

right). Make sure to test coins, graphite (through pencil as shown earlier), salt water and also throw in several insulators as well. You will be surprised at some of the misconceptions that the students have. My fifth grade students loved

this activity.



STRONG FOUNDATION, CONTINUED FROM PAGE 2

plans, conferences websites, networking and just plain old camaraderie could be had. The educational component of that grant established MASTEP, Northeastern Oklahoma State University's Math and Science Teacher Enhancement Program, which provided subsidized additional education for about two hundred northeastern Oklahoma educators, in the fields of science and mathematics. The success of MASTEP led to NSU offering

graduate degree programs in Science Education and Mathematics Education. Many of us enhanced our careers and education through this program, and it was participants in the MASTEP program who formed the initial membership in that group Dr. Adams envisioned. The Northeastern Oklahoma Math and Science Teachers Association began the first year of the NSTA grant and is now composed of over 300 pre-service and in-service teachers of mathemat-

ics and science, covering the educational spectrum with membership who teach in early elementary to those who teach in colleges and universities, with middle school, junior high and high school being the majority.

MASTEP and NOMSTA were built on a solid foundation by caring and insightful instructors who established a dream. It is now in the hands of you, the NOMSTA members, to make this organization worthy of it's founding.



"It is now in the hands of you, the NOMSTA members, to make this organization worthy of it's founding."

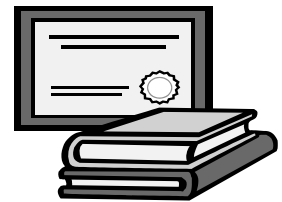
CERTIFICATION CHANGES

BY: [Dr. Pamela Christol](#)

In other news, NCATE has changed the required assessments for Science Education Initial Certification Programs. NSTA will offer a short course entitled "Preparing for an NSTA/NCATE Review" at its national conference in Anaheim, California. The workshop will run from 8:00 am to noon on Thursday, April 6th. NSTA/NCATE Reviewer Training will also be held on Saturday, April 8th, from 8:00 am to 5:00 pm at the Anaheim Meeting.

Currently, the article, "Mixed Reviews for State Science Standards" in the February 2006 (Vol. 17 No. 4) Issue of NSTA Reports, publishes the grades of individual states' preparation of their state science standards. Oklahoma received a failing grade, both in 2000 and in 2005. Suggestions for improving state science standards are given in the report. Articles are also referenced concerning the argument for national standards, curricula, and tests. (<http://science.nsta.org/nstaexpress/nstaexpress-2006-01-03-completearticle>). From this controversy,

NSTA decided to conduct a poll asking science educators if they thought it a "good idea" to have a uniform set of national content standards that every state would be required to use. The majority of science educators indicated that they would support national standards, a national curriculum, and uniform assessments in science. (<http://science.nsta.org/nstaexpress/nstaexpress-2006-01-17-poll.htm>)



NCATE Changes to Required Assessment for Science Education Initial

NORTHEASTERN OKLAHOMA MATH & SCIENCE TEACHER'S ASSOCIATION

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From the Editor

This is a time when many sources decry the "Dumbing Down" of education in America. In recent articles in the Tahlequah Daily Press (January 25, 2006), in the Boston Globe (January 12, 2006), and in the Princeton Review, cited study which found that "only 31 percent of college graduates qualified as proficient in reading and understanding information."

The Boston Globe article offered a sad parallel between today's college and that depicted in the 1970's film "Animal House" suggesting that part of the blame may be placed in our government officials who like Bruno Blutarsky (the character played by John Belushi) made their way into influence after incompleting of their studies with a 0.08 GPA.

I earned a master's degree from Northeastern State University and proudly display my diploma on the wall of my office at Tulsa Community College, where I teach developmental mathematics. I didn't obtain that degree until well into adulthood, and to earn it I spent countless hours in study, performing research and attending class, most of which I had to drive an hour from Tulsa to Tahlequah to attend, followed by an hours drive back home, sometimes that return trip didn't even begin until after 11 pm. When the rest of my family was safely and comfortably asleep. They and I sacrificed to enable me to complete that formal education. I know that I am the better for it, for I truly could not do what I do today had NSU condensed or short cut my education in any way. My students and my administration realize daily the value of the education I received at NSU.

In the news section of NSU's home web-

page Chancellor Paul Risser boasts of NSU's choice to offer a degree completion program where-in 69,000 college drop-outs and countless other adults who complete 72 hours of unspecified study can come one or two nights a week to a local NSU campus and "earn" their college degree in 18 months, completing what takes the average college student two years of everyday coursework. If anyone can complete a degree in such short manner, why would anyone bother to take the traditional route to education? Furthermore what is the value of a degree earned in such a manner, or from an institution that offers such a program?

Is it an uneducated support or merely one focused on the economics that would propose, support or more sadly adopt a degree completion program at a previously prestigious university. , and perhaps not even mandating such basic educational requirements as Composition or College Algebra.

If one wanted to fuel the fire of disillusion with college credentials, wanted to devalue the worth of a college degree one need only to make such a degree easy to obtain. We may sit on the sideline and complain that American values are declining, we may express our displeasure in the fact that fewer and fewer American students are even attempting to aspire to the challenge of college degrees in the sciences or mathematics, but if we truly want to give everyone a college degree then we might as well accept that soon such a degree will be as meaningless as Bruno's 0.08 GPA, and our graduates will be similarly "well Educated."