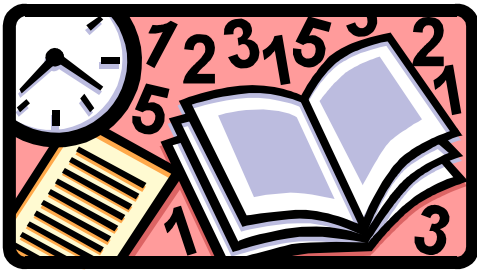


Northeastern Oklahoma Mathematics and Science Teacher Association



**First Annual
Meeting
February 8, 2003
9:00 AM – 3:00 PM**

**Northeastern State
University
Tahlequah, OK**



**Sponsored in part by the College of Math, Science, and Nursing; Northeastern
State University; and NSU MASTEP, a National Science Foundation Funded
Program**

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Please say thank you to our sponsors of door prizes
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Northeastern Oklahoma Mathematics and Science Teacher
Association (NOMSTA)
First Annual Meeting
February 8, 2003
9:00 am - 3:00 pm

Northeastern State University, Tahlequah, OK
Sponsored in part by
College of Math, Science and Nursing, Northeastern State University and
NSU MASTEP, a National Science Foundation funded program

Conference Overview		
8:30 - 9:00 am	Pick up Packets On-Site Registration	Reception area of NET Auditorium
9:00 - 9:15 am	Welcome Welcome to NSU (<i>Dr. Craig Clifford</i> , Dean of the College of Math, Science and Nursing, NSU) Introduction of Officers and Board (<i>Timmie Spangler</i> , President) Conference Information (<i>Lance Phillips</i> , President-Elect)	NET Auditorium
9:15 - 10:00 am	"No Child Left Behind: What it Means to Mathematics and Science Education in Oklahoma," Presentations and panel discussion by <i>Marci Hickman</i> , Science Director, and <i>Iva Owens</i> , Mathematics Director, State Department of Education	NET Auditorium
10:15 - 11:05 am	Session I Workshops	See Below
11:20 am - 12:10 pm	Session II Workshops	See Below
12:20 - 1:50 pm	Lunch and NOMSTA Meeting Lunch is provided for pre-registered attendees and presenters at no additional charge.	Ballroom, UC
2:10 - 3:00 pm	Session III Workshops	See Below
3:00 - 4:00 pm	NOMSTA Board Meeting	Dogwood South, 3 rd Floor, UC

Session I Mathematics Workshops (10:15 - 11:05 am)

IM1 General Interest Mathematics Morgan Room, Third Floor, UC

Test Specifications of the Algebra I End of Instruction Test, *Iva Owens, Mathematics Director, State Department of Education*. This session will focus on the new Algebra I End of Instruction Test including test specifications, blueprints, and item specifications.

IM2 (IS2) General Interest Mathematics and Science Room 222, 2nd Floor, UC

MASTEP: A Professional Development Opportunity for Middle School Mathematics and Science Teachers, *Dr. April Adams and Dr. Deborah Carment, Northeastern State University*. This session will describe an NSF funded program for middle school mathematics and science teachers. Find out what will be offered summer 2003 and how to apply.

IM3 Early Childhood and Elementary Mathematics Room 223, 2nd Floor UC

How Math Games Support Children's Learning, *Dr. Denise Daros-Voseles, Brenda Adair, Sandra Cole, Danielle Donelson, Amanda Gideon, Amanda Smith, Northeastern State University*. Pre-service teachers will demonstrate and explain how the games they constructed and brought into the classroom facilitated children's construction of mathematical knowledge.

IM4 Elementary and Middle School Mathematics Redbud Room, 3rd Floor, UC

Find the Math in Reading: "Integrating Math," *Shelly Gantt*. I will show some activities that can be done with books and tangrams. I will also show an activity on division and addition of decimals.

IM5 Middle School and High School Mathematics Room 225, 2nd Floor, UC

More Than Geometry with Geometers Sketchpad
Dr. Wendell Wyatt, Northeastern State University
The potential and capability of the Geometer's Sketchpad will be demonstrated with examples applicable to introductory concepts as well as classic theorems from plane geometry. The dynamic aspect of the software will be accentuated.

IM6 High School Mathematics Dogwood Room 3rd Floor, UC

Discovering Learning in Algebra and Pre-calculus using Graphing Calculators, *Ann West*. Students can use graphing calculators to "discover" important principles of quadratic and polynomial functions, exponential growth and decay, and finding maximum or minimum value.

Session I Science Workshops (10:15 - 11:05 am)

IS1 General Interest Science Ballroom Lounge, 2nd Floor, UC
Test Specifications for the 5th and 8th grade Science Tests, *Marci Hickman, Science Director, State Department of Education*. This session will focus on the new 5th and 8th grade science tests including test specifications, blueprints, and item specifications.

IS2 (IM2) General Interest Science and Mathematics Room 222, 2nd Floor, UC
MASTEP: a Professional Development Opportunity for Middle School Mathematics and Science Teachers, *Dr. April Adams and Dr. Deborah Carment, Northeastern State University*. This session will describe an NSF funded program for middle school mathematics and science teachers. Find out what will be offered summer 2003 and how to apply.

IS3 Elementary and Middle School Science Room 224, 2nd Floor UC
Magnets and Motors, *Dr. Calvin Cole, Northeastern State University*. Participants will perform selected exercises from NSRC/STC Module. Key concepts as well as weak and strong points will be shown along with a look at details about safety.

IS4 Elementary and Middle School Science Ballroom C, 2nd Floor, UC
Talking Trash, *Kay Frank, Solid Waste Institute of Oklahoma*. Demonstration of hands-on activities on the problems of illegal dumping and littering. Includes information on landfills, recycling, and composting. Ground water model. Handouts.
(Also offered Session IIS5)

IS5 Middle School Science and High School Room 226, 2nd Floor, UC
Chemistry and the Atom: Fun with Atom Building Games, *Kathlene Woodring, CPO Science*. In this workshop, you will experience innovative games and activities that give students with different learning styles fun opportunities to explore and grasp atomic structure and the periodic table.

IS6 High School Science Biology Cedar Room, 3rd Floor, UC
Modeling DNA Replication and Protein Synthesis, *Marsha Sutton*. Explanation of DNA replication using felt pieces. Practice of protein synthesis with pencil and paper.

Session II Mathematics Workshops (11:20 am - 12:10 pm)

IIM1 General Interest Mathematics Morgan Room, 3rd Floor, UC
Test Specifications of the 5th and 8th Grade Mathematics Tests, *Iva Owens, Mathematics Director, State Department of Education*. This session will focus on the new 5th and 8th Grade Mathematics Tests including test specifications, blueprints, and item specifications.

IIM2 (IIS2) General Interest Mathematics and Science Cedar Room, 3rd Floor UC

Where in the World Can You Go to Meet with Mathematics and Science Teachers? *MASTEP Conference Stipend Awardees: Marjean Dowling, Tahlequah H. S.; Phares Engle, Tahlequah Academy of Success; John Paul Harvell, Muldrow M.S.; Karl Hutchison, Locust Grove M.S.; Vicky Hurst, Beggs School; Jeff Lawrence, Lowrey School; Linda Morgan, Liberty Elementary; Jamie Sharp, Muldrow M.S.; Timmie Spangler, Depew M.S.; Moderator, Patricia Laughlin, Catoosa M. S.* In this session *MASTEP* awardees will discuss conferences and workshops that they have or will attended this year. Come find out what is available form teachers who have been there.

IIM3 General Mathematics Room 225, 2nd Floor UC

Mathematics and Quilting, *Dr. Deborah Carment, Northeastern State University.* Quilt designs can be analyzed using modular arithmetic, transformational geometry and group theory. Learn to design quilts using these mathematical tools.

IIM4 Elementary and Middle School Mathematics Dogwood, 3rd, Floor, UC

Elementary Cryptography, *Gayle Farmer, Northeastern State University.* An introduction to elementary coding, ciphering, and secret writing. A brief history of cryptography with its many applications and uses. There will be a brief demonstration and activities of various methods.

IIM5 Elementary and Middle School Mathematics Redbud Room, 3rd Floor UC

Hands-On Equations, *Lexy Taylor, Tahlequah Jr. High.* Learn to solve equations such as $2(x+4)+x=2x+10$. This is a hands-on teaching system for solving equations. Teaches the “zero pair”, opposites.

IIM6 Middle School Mathematics Dogwood South, 3rd Floor UC

Square Roots, *Linda Kerr.* Hands-on activity using pennies to find square roots.

IIM7 Middle School and High School Mathematics Room 222, 2nd Floor, UC

Graphing Calculators Incorporated in Algebra, *Shiranjini Jeyarajah, Boulevard Christian School.* Functions analyzed using graphing calculators. Terms introduced

Session II Science Workshops (11:20 am - 12:10 pm)

IIS1 General Interest Science Ballroom Lounge, 2nd Floor, UC

Test Specifications for the Biology I End of Instruction Test, *Marci Hickman, Science, State Director, Department of Education.* This session will focus on the new Biology I End of Year Test including test specifications, blueprints, and item specifications.

IIS2 (IIM2) General Interest Science and Mathematics Cedar Room, 3rd Floor UC

Where in the World Can You Go to Meet with Mathematics and Science Teachers? *MASTEP Conference Stipend Awardees: Marjean Dowling, Tahlequah H. S.;*

Phares Engle, Tahlequah Academy of Success; John Paul Harvell, Muldrow M.S.; Karl Hutchison, Locust Grove M.S.; Vicky Hurst, Beggs School; Jeff Lawrence, Lowrey School; Linda Morgan, Liberty Elementary; Jamie Sharp, Muldrow M.S.; Timmie Spangler, Depew M.S.; Moderator, Patricia Laughlin, Catoosa M. S. In this session MASTEP awardees will discuss conferences and workshops that they have or will attended this year. Come find out what is available form teachers who have been there.

IIS3 Early Childhood and Elementary Science Room 223, 2nd Floor UC
Science Inquiry Projects: A Powerful Tool for Engaging Children's Minds, *Dr. Denise Daros-Voseles, Brenda Adair, Sandra Cole, Danielle Donelson, Amanda Gideon, Amanda Smith, Northeastern State University.* Using documentation panels, pre-service teachers will explain how the project approach provided an opportunity for science inquiry and the nurturing of children's positive dispositions.

IIS4 Elementary Science Room 224, 2nd Floor UC
Electricity, *Dr. Calvin Cole, Northeastern State University.* Participants will perform selected exercises from NSRC/STC Module. Key concepts, weak and strong points, safety, and means of expanding the module will be presented.

IIS5 Elementary and Middle School Science Room 226, 2nd Floor, UC
Get Rockin' With the Rock Cycle! *Mary Hynes.* Make a 3-D model of the rock cycle using real rocks and a paper plate! The rock cycle made easy!

IIS6 Elementary and Middle School Science Ballroom C, 2nd Floor, UC
Talking Trash, *Kay Frank, Solid Waste Institute of Oklahoma.* Demonstration of hands-on activities on the problems of illegal dumping and littering. Includes information on landfills, recycling, and composting. Ground water model. Handouts.
(Also offered Session IS4)

Lunch and NOMSTA Meeting, UC Ballroom (12:20 - 1:50 pm)
Lunch requires a ticket. All presenters and pre-registered participants should have received a ticket. All tickets that have not been picked up by lunch time will be distributed to participants who registered on-site on a first come first served basis at 12:20 pm in front of the UC Ballroom. **There will be a NOMSTA Meeting after lunch. At this meeting, we will vote on the proposed By-Laws for the organization.**

Session III Mathematics Workshops (2:00 2:50 pm)

IIIM1 (IIS1) General Interest Mathematics and Science Cedar Room, 3rd Floor UC
Purchasing equipment and supplies for your classroom. What you can buy and how to use it. *MASTEP Supply Grant Awardees: Doris Apala, Pretty Water; Jason Burgess, Colcord; Kathy Coleman, Roland Upper Elementary; Julie Collins, Childers M.S.; Sherry Collins, Collinsville M.S.; Marjean Dowling, Tahlequah H.S.; Phares Engle, Tahlequah Academy of Success; Stacy Engle, E. W. Beavers M.S.; John Paul*

Harvell, Muldrow M.S.; Vicky Hurst, Beggs M.S.; Karl Hutchinson, Locust Grove M.S.; Jim Keene, Westville Public Schools; Jeff Lawrence, Lowrey School; Linda Morgan, Liberty Elementary; Cherinell Riley, Stilwell H. S.; Jamie Sharp, Muldrow M.S.; Timmie Spangler, Depew M.S.; Moderator: Lexy Taylor, Tahlequah Jr. High.

IIIM2 General Mathematics **Morgan Room, 2nd Floor, UC**

Tangrams, Polygons, and Pi, *Debra Hayes*. Hands-on using tangrams and discovery of shapes, relations, and following directions. Plus what is Pi anyway.

IIIM3 Elementary and Middle School Mathematics **Dogwood, 3rd, Floor, UC**

Explorations with Tessellating Figures, *Gayle Farmer, Northeastern State University*. An introduction to elementary tessellating figures. A brief explanation of which figures will tessellate and which will not. There will be a demonstration and activities of various figures that will fill the plane.

IIIM4 Elementary Mathematics **Room 225, 2nd Floor, UC**

Math Operations with Fraction Models, *Dr. Wendell Wyatt, Northeastern State University*, Participants will gain hands-on experience using Pattern Blocks to model the four Fundamental Operations of Arithmetic-addition, subtraction, multiplication, and division- with fractions.

IIIM5 Middle School and High School Mathematics **Room 224, 2nd Floor, UC**

Bend and Flex, *Dr. Joan E. Bell*. Hands-on demonstration of how to use straight strips of paper and a folding technique to make triangles, pentagons, hexagons, hexaflexagons, ect.

IIIM6 (IIS6) Middle and High School Mathematics and Science **Room 222, UC**

What's App'ening at TI? You Won't Believe it! *Ellen Johnston, Texas Instruments*. This session is for users and non-users of the TI-83+ Graphing calculator who are ready to venture into the realm of APPS. APPS are software that customize your handheld and are really easy to use after you learn some basic navigation skills. We will explore math and science APPS that are powerful teaching/learning tools along with the StudyCard and Learning Check APP that that can provide outstanding study, practice and assessment resources for all subjects including those high stake state exams. Come and explore all of the exciting APPS you can add to your TI-83 Plus or TI-83 Plus Silver Edition. All attendees will receive a USB TI GraphLink(tm) cable and TI Connect(tm) Computer software and can sign up as a VIP educator.

Session III Science Workshops (2:00 2:50 pm)

IIS1 (IIIM1) General Interest Science and Mathematics Cedar Room, 3rd Floor UC

Purchasing equipment and supplies for your classroom. What you can buy and how to use it. *MASTEP Supply Grant Awardees: Doris Apala, Pretty Water; Jason Burgess, Colcord; Kathy Coleman, Roland Upper Elementary; Julie Collins, Childers M.S.; Sherry Collins, Collinsville M.S.; Marjean Dowling, Tahlequah H.S.; Phares*

Engle, Tahlequah Academy of Success; Stacy Engle, E. W. Beavers M.S.; John Paul Harvell, Muldrow M.S.; Vicky Hurst, Beggs M.S.; Karl Hutchinson, Locust Grove M.S.; Jim Keene, Westville Public Schools; Jeff Lawrence, Lowrey School; Linda Morgan, Liberty Elementary; Cherinell Riley, Stilwell H. S.; Jamie Sharp, Muldrow M.S.; Timmie Spangler, Depew M.S.; Moderator: Lexy Taylor, Tahlequah Jr. High.

IIIS2 General Interest Science **Room 223, 2nd Floor UC**
Inquiry-Based Instruction, *Melissa Parnell, Dan Howard, and Lisa Yahola, Tahlequah Sr. High.* Participants in real inquiry lessons for your classroom

IIIS3 General Interest Science **Ballroom C, 2nd Floor, UC**
Discovering your “place,” *Mary Coley.* “Sense of place” is an awareness of “home” that includes history, geography, biology, and seasonality.

IIIS4 Elementary and Middle School Science **Room 226, 2nd Floor, UC**
Chocolate Chip Rock Cycle, *Mary Hynes.* Edible rock cycle activity takes you through the steps of the rock cycle and the changes that occur.

IIIS5 Middle School Science **Ballroom Lounge, 2nd Floor, UC**
Here Are a Few of My Favorite Things, *Susan Oliver, Owasso 8th Grade Center.* A 20-year veteran middle level science teacher shares some of her most successful classroom demonstrations as well as activities sure to enrich the learning experience for your students.

IIIS6 (IIIM6) Middle and High School Mathematics and Science **Room 222, UC**
What's App'ening at TI? You Won't Believe it! *Ellen Johnston, Texas Instruments.* This session is for users and non-users of the TI-83+ Graphing calculator who are ready to venture into the realm of APPS. APPS are software that customize your handheld and are really easy to use after you learn some basic navigation skills. We will explore math and science APPS that are powerful teaching/learning tools along with the StudyCard and Learning Check APP that that can provide outstanding study, practice and assessment resources for all subjects including those high stake state exams. Come and explore all of the exciting APPS you can add to your TI-83 Plus or TI-83 Plus Silver Edition. All attendees will receive a USB TI GraphLink(tm) cable and TI Connect(tm) Computer software and can sign up as a VIP educator.

Spread the word about NOMSTA!

Membership forms are on the NOMSTA web site:

<http://arapaho.nsuok.edu/~NOMSTA>

In Memoriam of the Crew of STS-107



High Flight

Oh! I have slipped the surly bonds of earth
And danced the skies on laughter-silvered wings;
Sunward I've climbed, and joined the tumbling mirth
Of sun-split clouds - and done a hundred things
You have not dreamed of - wheeled and soared and swung
High in the sunlit silence. Hovering there,

I've chased the shouting wind along, and flung
My eager craft through footless halls of air.
Up, up the long, delirious, burning blue
I've topped the wind-swept heights with easy grace
Where never lark, or even eagle flew -
And, while with silent lifting mind I've trod
The high untrespassed sanctity of space,
Put out my hand and touched the face of God.

John Gillespie Magee, Jr.