

Program for 2009 Joint Conference

Thursday

7 pm

7:00-9:00 pm
Dakota C

Session: 1
Feb. 5, 2009

Grade Level: K-C

Speaker(s): Cindy Kroon
President of SDCTM

Math Sharing Session

Sharing lessons and activities will be the focus of this session. Bring 25 copies of your favorite activity or lesson.

7:00-9:00 pm
Dakota G

Session: 2
Feb. 5, 2009

Grade Level: K-C

Speaker(s): Molly TenBroek
President-elect of SDSTA

Science Sharing

Sharing lessons and activities will be the focus of this session. Bring 25 copies of your favorite activity or lesson.

Next Year's Conference is
February 4, 5, & 6, 2010

Friday

8:30 am

8:30-9:20
Prairie C

Session: 3
Feb. 6, 2009

Grade Level: K-C

Featured Speaker
Dr. Jose Alonso
Sanford Underground Lab

Deep Science for Everyone

A description of the current progress at Homestake mine and how the worldwide demand for "deep" science labs is creating opportunities all across SD.

8:30-9:20 am
Dakota A

Session: 4
Feb. 6, 2009

Grade Level: K-12

Speaker(s): Nola Redmond
& David Lewis
Connecting Point

Interactive White Boards

No matter what your level of experience with an interactive white board, come see what makes the Promethean the number one choice. In this session come see the Teaching Accessories and ActivStudio Software features of the Promethean ActiveBoards. You will see the new ActiveExpressions in action and be shown how they work and why they make students excited at test time and don't want the test to end. Caution: Be prepared to get calls at home from irate parents whose child didn't get to use the Promethean Board that day.

Friday

8:30 am

**8:30-9:20 am
Dakota B**

**Session: 5
Feb. 6, 2009**

Grade Level: K-8

Speaker(s): Erin N. Larsen
SD DOE

Ready, Set, Science!

Putting research to work in K-8 science classrooms. Participants will receive a copy of the book, "Ready, Set, Science.!"

**8:30-9:20 am
Dakota C**

**Session: 6
Feb. 6, 2009**

Repeat of #101

Grade Level: 3-12

Speaker(s): Steven M. Wegman
National Renewable Energy Lab

Wind for Schools

So you want to get a wind energy turbine for your school? Mr. Wegman is the state wind facilitator for wind for school. See www.sdwind.com/wac

Do you have a banquet ticket?

The speaker is Dr. Ed Porthan, founder of Embracing Excellence.

Friday

8:30 am

**8:30-9:20 am
Dakota D**

**Session: 7
Feb. 6, 2009**

Grade Level: K-5

**Speaker(s): Cindy Stofferhn
& Mary Cook**
Meade School District

Enhance Your Math Content with Illuminations Lessons and Activities

We all struggle to make sure we are meeting all the math standards for our grade levels. But as we all know, whatever curriculum materials we use, there are gaps and overlaps. We would like to share our process for meeting and exceeding the math standards at our grade level. This is done through the use of our state math standards, Kathy Richardson's Planning Guide and Materials, and Illuminations. See some of the Illuminations lessons in action and bookmark this site for your classroom teaching.

**8:30-9:20 am
Dakota E**

**Session: 8
Feb. 6, 2009**

Grade Level: 9-12

Speaker(s): Christina F. Bosse
Langford HS

Land of the Sea Monkeys

Get students excited about ecology with their own Sea Monkey Colony! A great biology project.

Friday

8:30 am

8:30-9:20 am
Dakota F

Session: 9
Feb. 6, 2009

Grade Level: 6-12

Speaker(s): John D. Hollingsworth
University Center

Construction Projects in the Mathematics Classroom

In this workshop, participants will create artwork based on the golden ratio using pentagons, squares, and a golden rectangle.

8:30-9:20 am
Dakota G

Session: 10
Feb. 6, 2009

Grade Level: 6-12

**Speaker(s): Larry Browning
& Bob Tower**
SDSU & TI

Introducing the TI-N-spire CAS

Texas Instruments new calculator the TI N-spire CAS is a powerful tool for teaching math with data collection capabilities for the science teacher. Some of these capabilities will be introduced.

8:30-9:20 am
Dakota H

Session: 11
Feb. 6, 2009

Grade Level: K-12

Speaker(s): Dr. Kimberly A. Cypher
SD DOE

Formative Assessment/Achievement Series

This session will be an overview of the Achievement Series. This is standards based assessment available at www.achievementseries.com

Friday

8:30 am

8:30-9:20 am
Symposium

Session: 12
Feb. 6, 2009

Grade Level: 6-12

Speaker(s): Angie Wilken
Woodfield Center

Motivational Learning Games

Come play games! Bingo, Taboo & scavenger hunts are adapted to meet desired concepts being studied. These games are used to connect concepts, learn new material and motivate students.

8:30-9:20 am
Salon

Session: 13
Feb. 6, 2009

Repeat of #117

Grade Level: 9-12

Speaker(s): Judy Vondruska
SDSU

Clickers in the Classroom

Student response systems provide an opportunity for everyone in your classroom to participate and for you to learn, on the spot, how well your students understand the materials you are teaching. This session will provide hands-on experience with one type of clicker system and look at what research indicates about the use of clickers in the classroom.

**Have you checked out “Share
the Classroom Treasures”?**

**Stop in the Board Room and
see what is there.**

Friday

9:30 am

**9:30-11:20 am
Prairie A**

**Session: 14
Feb. 6, 2009**

Grade Level: 6-9

**Featured Speaker
Don Balka**

Saint Mary's College Notre Dame, IN

**Algebra Tiles:
Representing the Big Idea**

Participants will be actively involved with algebra tiles for visualizing major algebra concepts: operations and algebraic expressions, solving equations and inequalities, and playing games for reinforcing the big ideas. Materials will be provided.

**9:30-10:20 am
Prairie B**

**Session: 15
Feb. 6, 2009**

Grade Level: 6-12

**Featured Speaker
Murray H. Siegel**
Central Arizona College

**Real Data Makes Functions Come
Alive**

Using real data and the graphing calculator linear, piece-wise, quadratic, cubic and exponential functions are seen as relevant.

Friday

9:30 am

**9:30-11:20 am
Prairie C**

**Session: 16
Feb. 6, 2009**

Grade Level: K-12

Speaker(s): Rocky Von Eye
Dakota Wesleyan University

**From Smart Board to iPod, Step by
Step Instructions**

Learn how to make a movie of best examples. Import the movie to your iPod (which your students will also be able to do). Your students will have videos of examples for every chapter right on their iPods. (Software needed: SmartBoard recorder, Quicktime Pro and iTunes--other options are available)

**9:30-10:20 am
Dakota B**

**Session: 18
Feb. 6, 2009**

Grade Level: 6-12

Speaker(s): Jensi Kellogg-Andrus
Watertown HS

**Bringing the Smithsonian Institution
to Your Science Classroom**

Don't have enough field trip money to take your students to the Smithsonian Institution? Come to this session to learn about Smithsonian Institution resources, activities, and lesson plans you can use to engage your students!

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Friday

9:30 am

9:30-10:20 am
Dakota C

Session: 19
Feb. 6, 2009

Grade Level: 6-12

Speaker(s): Jane Healy
& Julie Erickson
SD State Library

**World Book Online and More
Resources to Support Math**

Did you know the SD State Library provides subscription electronic resources that support the SD Math Content Standards? Expand your teaching tools by attending this session that provides a demonstration of the electronic resources. Bring your own laptop and follow along.

9:30-10:20 am
Dakota D

Session: 20
Feb. 6, 2009

Grade Level: 9-12

Speaker(s): Julie Olson
& Tricia Neugebauer
Mitchell HS

Boom Academy

Come see some great chemistry demonstrations and labs and really catch your students' attention!

Do you have a banquet ticket?

The speaker is Dr. Ed Porthan,
founder of Embracing
Excellence.

Friday

9:30 am

9:30-10:20 am
Dakota E

Session: 21
Feb. 6, 2009

Grade Level: 9-12

Speaker(s): Harlan J. Heitz
& Dr. Richard Peterson
Presentation College

**Chemical Safety and Storage in the
Classroom**

How safe is your lab? Join us for some chemical safety updates on how to keep your students safe and your chemical storage secure.

9:30-10:20 am
Dakota F

Session: 22
Feb. 6, 2009

Grade Level: 6-12

Speaker(s): Matthew Miller
& Larry Browning
SDSU

**Preservice Science Teacher
Conversation**

This is an opportunity to meet future science teachers from SDSU. Students will have planned questions to ask experienced teachers, so please come and share your expertise with these novice instructors.

**Have you checked out the
vendors?**

Friday 9:30 am

9:30-10:20 am Session: 23
Dakota G Feb. 6, 2009

Grade Level: K-5

Speaker(S): Micheline Hickenbotham
BHSU

Multiplication & Division Facts

This session will allow teachers to share strategies to help elementary students who struggle with their facts. From the research to the classroom, what works, what practice looks like.

9:30-10:20 am Session: 24
Dakota H Feb. 6, 2009

Grade Level: 3-5

Speaker(s): Steven M. Rokusek
SD Public Broadcasting

Kids Quest: Making Change Really Counts

We have developed a new Kids' Quest TV program for elementary children about counting back change. Each participant will receive a DVD of the program & a CD of the lesson plans.

9:30-10:20 am Session: 25
Symposium Feb. 6, 2009

Grade Level: 3-8

Speaker(s): Brant G. Miller
Joel D. Donna
University of Minnesota

**Reaching for the Sky:
STEM Outreach and Indigenous Knowledge**

The Reach for the Sky (RFTS) program seeks to interate indigenous knowledge with innovative STEM curriculum for contextually authentic learning situations. Participants will engage in activities which highlight efforts undertaken by the RFTS team during outreach efforts. Relevant curriculum samples will be provided.

Friday 9:30 am

9:30-10:20 am Session: 26
Salon Feb. 6, 2009

Repeat of #102

Grade Level: 9-12

Speaker(s): Judy Vondruska
SDSU

2009 International Year of Astronomy

Become involved in promoting astronomy in 2009! Learn about local/national and international resources as well as activities for your students including The Great World Wide Star Count. This session will focus on providing resources and developing ideas for promoting astronomy in 2009.

Friday 10:30 am

10:30-11:20 am Session: 27
Prairie B Feb. 6, 2009

Grade Level: 3-8

Featured Speaker
Murray H. Siegel
Central Arizona College

**The Truth about Fractions, Decimals,
and Percents**

What is a fraction? Learn the reasons for our methods used in operating with fractional numbers.

Friday 10:30 am

10:30-11:20 am Session: 28
Dakota A Feb. 6, 2009

Grade Level: K-12

Speaker(s): Kristi Lutgen
Deubrook Area Schools

Telling a Story Using Photostory

As a teacher, I am always looking for free and powerful technology to use in my classroom. Microsoft Photostory is such a program. I will show you the basics of using Photostory and share a project I developed using the program please bring your laptop/notebook so you too can enjoy the program.

10:30-11:20 am Session: 29
Dakota B Feb. 6, 2009

Grade Level: 6-8

Speaker(s): Danielle Keninger
& Brooke McDonald
Chester Area School

Beyond the Textbook

This session will focus on the use of manipulatives and other hands-on activities used to present and reinforce mathematical concepts in grades 5-8. Teachers will learn how to use these activities to support standards being taught.

Next Year's Conference is
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Friday 10:30 am

10:30-11:20 am Session: 30
Dakota C Feb. 6, 2009

Repeat of #89

Grade Level: 6-12

Speaker(s): Jane Healy
& Julie Erickson
SD State Library

World Book Online and More **Resources to Support Science**

Did you know the SD State Library provides subscription electronic resources that support the SD Science Content Standards? Expand your teaching tools by attending this session that provides a demonstration of the electronic resources. Bring your own laptop and follow along.

10:30-11:20 am Session: 31
Dakota D Feb. 6, 2009

Repeat of #89

Grade Level: K-12

Speaker(s): Lori Keleher
& Allen Hogie
Miller HS & Brandon Valley HS

Take One!

Learn about a unique offering from the National Board for Professional Teaching Standards. Participate in a roundtable discussion about the certification process.

Do you have a banquet ticket?

The speaker is Dr. Ed Porthan,
founder of Embracing
Excellence.

Friday 10:30 am

10:30-11:20 am Session: 32
Dakota E Feb. 6, 2009

Grade Level: K-2

Speaker(s): SD Discovery Center Staff
SD Discovery Center

Great Explorations in Math and Science (G.E.M.S.) for Early Elementary

"Treasure Boxes" and "Tree Homes" are GEMS kits filled with hands-on, engaging activities for early elementary students. Come discover how to use these activities in your classroom or after school program.

10:30-11:20 am Session: 33
Dakota F Feb. 6, 2009

Grade Level: 6-12

Speaker(s): Ashley Van Maanen
SDSU

Q & A--Help Us Out

SDSU Students, Sherri Christensen, Matt Gill, Kelsey Guy, Laura Jones, Jack Mueller, Heidi Quail, Melanie Zinter, and others would like to discuss first year teacher issues, concerns, and preparation. Bring your thoughts and advice for these young professionals.

Have you visited the vendors?

Friday 10:30 am

10:30-11:20 am Session: 34
Dakota G Feb. 6, 2009

Grade Level: 3-12

Speaker(s): Larry Browning & Matt Miller
SDSU

Interactive Data Collection and Analysis

Participants will be introduced to the use of specific data collection probes. Data will be collected during the session, then analyzed. Participants are encouraged to bring their own equipment to participate in the analysis.

10:30-11:20 am Session: 35
Dakota H Feb. 6, 2009

Grade Level: 3-5

Speaker(s): Steven M. Rokusek
SD Public Broadcasting

Cyberchase: Math & Sports

The presentation will cover lessons that will incorporate mathematics, sports & fun into your classroom.

10:30-11:20 am Session: 36
Symposium Feb. 6, 2009

Grade Level: K-12

Speaker(s): Bill Gripenrog
Watertown HS

Motivating the Unmotivated

Getting students to care is challenging in today's culture. Some strategies that I have used to reach these students will be presented.

Friday

10:30 am

10:30-11:20 am
Salon

Session: 37
Feb. 6, 2009

Grade Level: 9-12

Speaker(s): Judy Vondruska
SDSU

**YouTube Physics and Other Online
Resources for Physics**

Take advantage of the many online resources for teaching physics. YouTube offers videos of physics-related activities difficult to demonstrate in a classroom. Online tutorials and interactive labs can help students learn in and out of the classroom. In this session you will learn about a variety of online resources - all of which are free! Bring your laptop and join in the fun!

Friday

1:30 pm

1:30-3:20 pm
Prairie A

Session: 39
Feb. 6, 2009

Grade Level: K-2

Featured Speaker
Don Balka

Saint Mary's College Notre Dame, IN

**Unifix Cube Activities for the Primary
Grades**

Unifix Cubes are an important part of any beginning mathematics program. They are useful for developing classification skills, one-to-one correspondence, basic operations, ordinal numbers, problem-solving skills, patterning, and geometric ideas. Materials will be provided.

12:00 Noon
Prairie A, B, C

Session: 38
Feb. 6, 2009

Grade Level: All

Facilitators: Ramona Lundberg
& Cindy Kroon

LUNCH

Presidential Awardees
Science—Julie Olson, Mitchell
Mathematics—Allen Hogie, Brandon Valley

Announcements
Door Prizes

1:30-2:20 pm
Prairie B

Session: 40
Feb. 6, 2009

Grade Level: 6-12

Featured Speaker
Murray H. Siegel
Central Arizona College

Polynomials Are Numbers, Too!

If students can see the relationship between whole numbers and polynomials, algebra becomes more meaningful.

Friday

1:30 pm

**1:30-2:20 pm
Prairie C**

**Session: 41
Feb. 6, 2009**

Grade Level: K-12

**Featured Speaker
Nate Jones**

Wessington Springs Wind Farm

**Wind Energy of Wessington Springs
and South Dakota**

The newly opened Wind Energy Project at Wessington Springs, SD will provide clean and renewable energy to USD and SDSU. This presentation will describe the development of harnessing wind energy throughout our great state.

**1:30-2:20 pm
Dakota A**

**Session: 42
Feb. 6, 2009**

Grade Level: K-12

Speaker(s): Kristi Lutgen

Deubrook Area Schools

The Board in Action

If you have a Promethean Board, are getting one, or you are just curious what they are, then this session is for you. I will show you some neat features the Board has to offer, whether you are a math teacher, science teacher or an elementary teacher.

Friday

1:30 pm

**1:30-2:20 pm
Dakota B**

**Session: 43
Feb. 6, 2009**

Repeat of #111

Grade Level: 9-12

Speaker(s): Gregory T. Diersen
Great Plains Lutheran HS

**Two Physics Equations Using
Algebra and TI-Nspire**

Review vertical velocity and acceleration due to gravity while introducing the functions of TI-Nspire. Derive the equations, graph the data two ways, and experience TI-Nspire-CAS.

**1:30-2:20 pm
Dakota C**

**Session: 44
Feb. 6, 2009**

Repeat of #104

Grade Level: 7-12

Speaker(s): Molly J. TenBroek
McIntosh High School

**Voyages Through Time--An
Astrobiology Science
Curriculum**

The Voyages through Time series takes students on an epic journey through the origin of the universe, planets and life. It is a set of 5 CD's which can be incorporated into your present science class or used to teach a full year of astrobiology. The units are Cosmic Evolution, Planetary Evolution, Origin of Life, Evolution of Life, Hominid Evolution and Evolution of Technology. CD's include lessons, lab activities, videos, images, etc. Sample CD's will be handed out to participants.

**Next Year's Conference is
February 4, 5, & 6, 2010**

Friday 1:30 pm

**1:30-3:20 pm Session: 45
Dakota D Feb. 6, 2009**

Grade Level: K-5

**Speaker(s): Sandy Ullrich
& Mary Jo Christensen**
Aberdeen & Webster Elementary

Standards Based Activities

Math activities to get students thinking and talking with each other. Activities will cover Standards and all strands of Math.

**1:30-2:20 pm Session: 46
Dakota E Feb. 6, 2009**

Grade Level: K-12

Speaker(s): Erin N. Larsen
SD DOE

A Framework for SD Content Standards

Learn how the SD Department of Education is preparing for content standards revisions in Math and Science and give your input on this important process.

**1:30-2:20 pm Session: 47
Dakota F Feb. 6, 2009**

Grade Level: 6-8

Speaker(s): Christine Larson
SDSU

Fractions, Fractions, Fractions

Fraction activities that will help your students to really understand fractions and not just memorize procedures.

Friday 1:30 pm

**1:30-2:20 pm Session: 48
Dakota G Feb. 6, 2009**

Grade Level: 6-12

**Speaker(s): Larry Browning, Matthew
Miller, Paula Kurtenbach
& Jerome Krueger**
SDSU

OPIS: Our Place in Space

OPIS engaged teachers in activities to provide support for educationally disadvantaged students so that they can excel in math and science. The activities in 2008 included multicultural and financial aid discussion, and content specific activities. Come hear about the activities and build a temperature probe for a cb121 lab pro.

**1:30-2:20 pm Session: 49
Dakota H Feb. 6, 2009**

Grade Level: 9-12

Speaker(s): Steven M. Rokusek
SD Public Broadcasting

What's Up in Finance

SDPB will highlight "What's Up in Finance." This upbeat new personal finance program comes complete with lesson plans & an interactive website. Each participant will receive a DVD of the program.

What is new in vendor land this year?

Friday

1:30 pm

**1:30-2:20 pm
Symposium**

**Session: 50
Feb. 6, 2009**

Grade Level: K-12

**Speaker(s): Marlene Rothermel
& Lanette Johnston**
TIE & DOE

National Board & TTSN

Teachers will learn about the National Board Certification program and the state-wide virtual mentoring program

**1:30-2:20 pm
Salon**

**Session: 51
Feb. 6, 2009**

Grade Level: 9-12

**Speaker(s): Judy Vondruska
& Cathy Ezrailson**
SDSU & USD

STEM Education Research Group

Are you interested in conducting, participating in or learning about education research related to science, technology, engineering or mathematics? If so, join us for this organizational meeting of K-12 teachers and university faculty interested in education research in the STEM disciplines.

Don't forget the business meetings? These are your organizations—help them address your needs and reflect your ideas. Get involved.

Friday

2:30 pm

**2:30-3:20 pm
Prairie B**

**Session: 52
Feb. 6, 2009**

Grade Level: 6-12

**Featured Speaker
Murray H. Siegel**
Central Arizona College

The Truth about Integers and Exponents

Learn why a negative times a negative is a positive and why a number to the zero power is one, and much, much more.

**2:30-3:20 pm
Prairie C**

**Session: 53
Feb. 6, 2009**

Grade Level: 6-12

**Featured Speaker
Tom Muchlinski**
NCTM Affiliate Services Committee

Answer the Question...Then Question the Answer

We will discuss several problems and activities that illustrate how students' understanding can be deepened by questions that are asked and investigations that are pursued once the solution has been determined.

Friday 2:30 pm

**2:30-3:20 pm Session: 54
Dakota A Feb. 6, 2009**

Grade Level: 9-12

Speaker(s): Kristen D. Gonsoir
Groton HS

**The Promethean Board in the
Science Classroom**

Ideas and uses of an interactive white board will be demonstrated. They are not just for elementary classrooms.

**2:30-3:20 pm Session: 55
Dakota B Feb. 6, 2009**

Grade Level: 3-12

Speaker(s): Jan Martin
SD DOE

Math & Science Questions Galore!

Looking for more assessment resources, especially for more open-ended items? The NAEP Questions Tool contains dozens of released items that align to South Dakota Standards. Come learn how to use this on-line resource!

Friday 2:30 pm

**2:30-4:20 pm Session: 56
Dakota C Feb. 6, 2009**

Grade Level: K-5

Speaker(s): Rene M. Pruitt
Dakota Wesleyan University

**Using Authentic Children's Literature
as a Springboard for Teaching
K-6 Mathematics**

"Doing" math is more dynamic when integrating children's literature with teaching methods that capture the student's attention. Mathematics becomes more realistic and provides a welcome change of pace for the classroom teacher and for the students. DWU Education majors present innovative options for connecting mathematics to literature.

**2:30-3:20 pm Session: 57
Dakota E Feb. 6, 2009**

Repeat of #83

Grade Level: 9-12

Speaker(s): Sheila E. McQuade
O'Gorman HS

Hands-on Geometry

Your students can "discover" many of the formulas or theorems we teach using simple manipulatives like spaghetti and straws. You'll have ideas ready for Monday morning.

**Next Year's Conference is
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Friday 2:30 pm

2:30-3:20 pm Session: 58
Dakota F Feb. 6, 2009

Repeat of #103

Grade Level: 6-12

Speaker(s): Eugene R. Bormann
US Army Corps of Engineers

Endangered Species of the Missouri River

An introduction to why the least tern, piping plover and pallid sturgeon became endangered and what is being done to restore each population.

2:30-3:20 pm Session: 59
Dakota G Feb. 6, 2009

Grade Level: 9-12

Speaker(s): James E. Stearns
Groton Area School Dist.

SD-AAPT Photo Contest

Final voting and judging will be taking place on the photos and essays submitted. (Check out the photos in the hall Thursday night and/or Friday and put in your 2 cents worth.)

2:30-3:20 pm Session: 60
Dakota H Feb. 6, 2009

Grade Level: K-12

Speaker(s): Chad R. Tussing
SD Game, Fish & Parks

Black-footed Ferrets

Join us for a presentation about North America's most endangered mammal. We'll discuss biology, history, management and educational activities for the classroom.

Friday 2:30 pm

2:30-3:20 pm Session: 61
Symposium Feb. 6, 2009

Grade Level: 6-12

Speaker(s): Sharon Vestal,
Chris Larson,
& Judy Vondruska
SDSU

Mathematics on the Move

Last summer we held a workshop that uses science activities to teach mathematics concepts. It is based on the successful Science on the Move project. We will demonstrate some activities from the workshop. This project was funded by a Board of Regents Title II NCLB grant and we have applied for funding again.

2:30-4:20 pm Session: 62
Salon Feb. 6, 2009

Grade Level: 9-12

Speaker(s): Pandi Pittman
Wall School District

Copper Mining

Going through the steps of extracting copper from a rock sample while reviewing science inquiry learning.

Next Year's Conference is
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Friday

3:30 pm

3:30-4:20 pm
Prairie A

Session: 63
Feb. 6, 2009

Grade Level: 3-5

Featured Speaker
Don Balka

Saint Mary's College Notre Dame, IN

**Activities with Random Digits:
With and Without Manipulatives**

A page of random digits provides a wealth of activities for numer sense, computation, operations order, place value, estimation, and many more. Findings from classroom research will be included.

Friday

3:30 pm

3:30-4:20 pm
Prairie C

Session: 65
Feb. 6, 2009

Grade Level: K-12

Featured Speaker
Dr. Jose Alonso

Sanford Underground Lab

Deep Science for Everyone

Presentation will describe current programs at Homestake and how the worldwide demand for "deep" science labs is creating opportunities all across SD

3:30-4:20 pm
Prairie B

Session: 64
Feb. 6, 2009

Grade Level: K-5

Featured Speaker
Tom Muchlinski

NCTM Affiliate Services Committee

**Using Number and Operation
Concepts to Foster Algebraic
Thinking in Grades K-5**

Participants will be actively engaged in activities involving number and operations that also promote the understanding of algebraic concepts in the elementary grades. Two of the concepts to be discussed are equality and rates of change.

3:30-4:20 pm
Dakota A

Session: 66
Feb. 6, 2009

Grade Level: K-2

**Speaker(s): Barbara Rokahr-Froiland
& Janet Kawecki**

Pearson Scott-Foresman

**Center Activities for a New
Generation of Math K-2**

The participants in this session will experience hands-on activities incorporating materials from the new Scott Foresman enVision MATH program. Differentiated grade level math center activities as well as digital components from the program will be provided to each participant. Limited to 30.

Friday 3:30 pm

**3:30-4:20 pm Session: 67
Dakota B Feb. 6, 2009**

Repeat of #92

Grade Level: K-12

**Speaker(s): Micheline Hickenbotham
BHSU**

**2009: Year of Science...Explore,
Empower, Engage**

This conversation will invite teachers to celebrate 2009 as the Year of Science, a national year-long celebration to engage the public in science and improve understanding about how science works, why it matters, and who scientists are. Sponsored by COPUS-Coalition on the Public Understanding of Science

**3:30-4:20 pm Session: 68
Dakota D Feb. 6, 2009**

Repeat of #86

Grade Level: K-12

**Speaker(s): Sarah P. Carlson
Saxon Publishing**

I have a SECRET...

You need a Balanced Problem Solving Approach to solve ALL types of word problems! Come to this interactive presentation where you will learn about the two types of word problems and how to teach them to your students.

**The vendors have NOT left
the building!**

Friday 3:30 pm

**3:30-4:20 pm Session: 69
Dakota E Feb. 6, 2009**

Grade Level: 6-12

**Speaker(s): Anne Lewis
& Tricia Neugebauer
SD Discovery Center**

The Leopold Education Project

Explore the natural world. Use the resources of the Leopold Education Project to add a cross curricular dimension to ecology and earth science.

**3:30-4:20 pm Session: 70
Dakota F Feb. 6, 2009**

Repeat of #93

Grade Level: 6-12

**Speaker(s): Paul R. Kuhlman
Avon School**

A Penny Saved Is a Penny Earned!

In this presentation we will learn how to use pennies and other coins to teach the concept of density. This investigation will also lead into a discussion of using pennies to demonstrate physical and chemical changes.

**Next Year's Conference is
February 4, 5, & 6, 2010**

Friday 3:30 pm

**3:30-4:20 pm Session: 71
Dakota G Feb. 6, 2009**

Grade Level: 9-12

**Speaker(s): SD-AAPT Officers
SDSU**

AAPT Meeting

All interested Physics or Physical Science teachers are invited to attend. This is the annual meeting of the South Dakota chapter of the American Association of Physics Teachers.

**3:30-4:20 pm Session: 72
Dakota H Feb. 6, 2009**

Grade Level: 9-12

**Speaker(s): Matthew Miller
SDSU**

**Master of Chemistry for Secondary
Teacher**

In the fall of 2008 the chemistry department at SDSU; began an on-line program designed for secondary science teachers with the goal of awarding a master's degree in chemistry with a specializations in chemistry teaching. This workshop will provide insight into the program and examples of the work being completed.

**Business Meetings are open to
all members. You should go.**

Friday 3:30 pm

**3:30-4:20 pm Session: 73
Symposium Feb. 6, 2009**

Grade Level: K-8

**Speaker(s): Marvin Gamble
& Marilyn Glick
USD**

**Number Theory for Elementary
Teachers Workshop**

This is a workshop that will be held at USD during the summer of 2009 for one week. Topics in number theory will be covered through exploration and hands on activities. Three graduate hours credit can be earned.

4:40-5:30 pm Dakota C	Session: 74 Feb. 6, 2009
Grade Level: All	
Presider: Cindy Kroon SDCTM President	
SDCTM Business Meeting	

4:40-5:30 pm Dakota G	Session: 75 Feb. 6, 2009
Grade Level: All	
Presider: Ramona Lundberg SDSTA President	
SDSTA Business Meeting	

Friday Evening

7:00-9:30 pm Prairie A, B, C	Session: 77 Feb. 6, 2009
Grade Level: All	
BANQUET	
Speaker: Ed Porthan	
Boats, Streams, and Dreams	

Saturday Morning

7:00-8:00 am Salon	Session: 78 Feb. 7, 2009
Grade Level: All Presidential Awardees	
Facilitators: Diana McCann & Ramona Lundberg	
Presidential Breakfast	
All past and present math and science awardees including this year's finalists are invited to join us for breakfast.	

Saturday

8:30 am

8:30-10:20 am Prairie A	Session: 79 Feb. 7, 2009
Grade Level: 6-9	
Featured Speaker Don Balka Saint Mary's College Notre Dame, IN	
Games and Activities for Prealgebra and Algebra	
Participants will be involved with games and activities for order of operations, integer arithmetic, operations on monomials and binomials, and solving linear and quadratic equations. They will use cards, dice, two-color counters, and number tiles. Materials will be provided.	

8:30-9:20 am Prairie B	Session: 80 Feb. 7, 2009
Grade Level: 3-8	
Featured Speaker Murray H. Siegel Central Arizona College	
The Truth about Whole Numbers	
Why do we do what we do when we add, subtract, multiply and divide whole numbers? Engaging activities are demonstrated.	

Saturday 8:30 am

8:30-9:20 am **Session: 81**
Prairie C **Feb. 7, 2009**

Grade Level: K-12

Speaker(s): Andy Johnson
CAMSE

Oil Prices & the Economy: A Complex System in Transition

The rise and fall of oil prices was driven by demand, speculation, finance, and limitations on production. We can expect more troubles with petroleum in the near future. Independent studies of oil discovery and production project a worldwide decline in oil and gas production. Alternative fuels will play a limited role in the future. This presentation takes a scientific (evidence-driven) approach to understanding the energy/economic system.

8:30-10:20 am **Session: 82**
Dakota A **Feb. 7, 2009**

Grade Level: 9-12

Speaker(s): Kelly Riedell
Brookings HS

Hands On Biology Activities

Experience a variety of role plays, labs, games, and other hands on learning activities which can be used to introduce new concepts, reinforce understanding, and enhance student performance for all students in your classroom. Participants will take home a CD with instructions and handouts in classroom-ready form.

Saturday 8:30 am

8:30-9:20 am **Session: 83**
Dakota B **Feb. 7, 2009**

Repeat of #57

Grade Level: 9-12

Speaker(s): Sheila E. McQuade
O'Gorman HS

Hands-on Geometry

Your students can "discover" many of the formulas or theorems we teach using simple manipulatives like spaghetti and straws. You'll have ideas ready for Monday morning.

8:30-10:20 am **Session: 84**
Dakota C **Feb. 7, 2009**

Grade Level: 3-12

Speaker(s): Dave & Jan Martin
Cheyenne-Eagle Butte HS & DOE

Crafting Math

Math concepts and skills are fundamental to most traditional and contemporary crafts. Come play with yarn, paper, and other materials that can be used to teach math. Bring your ideas to share!

8:30-9:20 am **Session: 85**
Dakota D **Feb. 7, 2009**

Grade Level: K-5

Speaker(s): Brenda Danielson
Scotland Elementary School

"M" Is for Measurement

Measurement skills need much practice after introduction. We will explore standards based activities for lessons or centers.

Saturday 8:30 am

8:30-9:20 am Session: 86
Dakota E Feb. 7, 2009

Repeat of #68

Grade Level: K-12

Speaker(s): Sarah P. Carlson
Saxon Publishing

I have a SECRET...

You need a Balanced Problem Solving Approach to solve ALL types of word problems! Come to this interactive presentation where you will learn about the two types of word problems and how to teach them to your students.

8:30-9:20 am Session: 87
Dakota F Feb. 7, 2009

Grade Level: 6-8

Speaker(s): SD Discovery Center
Staff
SD Discovery Center

Great Explorations in Math and Science (G.E.M.S.) for Middle School

Climate Change, Global Warning, and the Greenhouse Effect. The GEMS guide has two major aims: to present scientific theories and help students see the issue from different points of view.

Next Year's Conference is
February 4, 5, & 6, 2010

Saturday 8:30 am

NOTICE—THIS IS AN ALL DAY FOLLOW-UP TO THE SUMMER 2008 WORKSHOP

8:30am -3:50 pm Session: 88
Dakota G Feb. 7, 2009

Grade Level: 6-12

Speaker(s): Larry Browning,
Judy Vondruska,
& Christine Larson
SDSU

AstroMATH Follow-up

This is an all day follow up session for the summer 2008 workshop sponsored by a NCLB Partnership grant.

8:30-9:20 am Session: 89
Salon Feb. 7, 2009

Repeat of #31

Grade Level: K-12

Speaker(s): Lori Keleher
& Allen Hogie
Miller HS & Brandon Valley HS

Take One!

Learn about a unique offering from the National Board for Professional Teaching Standards. Participate in a roundtable discussion about the certification process.

Saturday

9:30 am

**9:30-10:20 am
Prairie B**

**Session: 90
Feb. 7, 2009**

Grade Level: 9-12

**Featured Speaker
Murray H. Siegel**
Central Arizona College

**Discovering the Derivative on the
Graphing Calculator**

Using the power of the graphing calculator, students can discover the derivatives of various functions; and they see what the derivative tells us about a function.

**9:30-10:20 am
Prairie C**

**Session: 91
Feb. 7, 2009**

Grade Level: 8-12

Speaker(s): Andy Johnson
CAMSE

**Teaching Radiation by Inquiry:
Distinguishing Types of
Radiation**

In the summer of 2008, 24 SD teachers attended a course on the basics of radiation at the Deep Underground Science and Engineering Laboratory (DUSEL) in Lead. Despite not getting a tour underground, the teachers had a good time and learned the fundamentals of radioactivity and radiation. In this session, we will go through a couple of the inquiry based activities that are designed for students to understand radiation. Our focus will be on helping students learn to distinguish between ionizing and electromagnetic radiation.

Saturday

9:30 am

**9:30-10:20 am
Dakota B**

**Session: 92
Feb. 7, 2009**

Repeat of #67

Grade Level: K-12

Speaker(s): Micheline Hickenbotham
BHSU

**2009: Year of Science...Explore,
Empower, Engage**

This conversation will invite teachers to celebrate 2009 as the Year of Science, a national year-long celebration to engage the public in science and improve understanding about how science works, why it matters, and who scientists are. Sponsored by COPUS-Coalition on the Public Understanding of Science

**9:30-10:20 pm
Dakota D**

**Session: 93
Feb. 6, 2009**

Repeat of #70

Grade Level: 6-12

Speaker(s): Paul R. Kuhlman
Avon School

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Saturday 9:30 am

**9:30-10:20 am Session: 95
Dakota F Feb. 7, 2009**

Grade Level: 9-12

Speaker(s): Marvin Gamble
USD

"Eureka" Archimedes Code

We will look at what is in the newest discovery of Archimedes book, the Stomachion puzzle, and how Archimedes did proofs.

**9:30-10:20 am Session: 96
Dakota H Feb. 7, 2009**

Grade Level: K-12

Speaker(s): Chad R. Tussing
SD Game, Fish & Parks

Back to the Future with Game, Fish & Parks

Join us for a step back in time to look at 200 years of wildlife history in South Dakota and North America.

The Joint Board Meeting for Conference Planning will be held at 4 pm Saturday, February 7, 2009. If you have suggestions as to how to improve the conference, fill out an evaluation or visit with one of the board members.

Saturday 10:30 am

**10:30-11:20 am Session: 97
Prairie A Feb. 7, 2009**

Grade Level: 3-5

Speaker(s): Barbara Rokahr-Froiland & Janet Kawecki
Pearson Scott-Foresman

Center Activities for a New Generation of Math 3-5

The participants in this session will experience hands-on activities incorporating materials from the new Scott Foresman enVision MATH program. Differentiated grade level math center activities as well as digital components from the program will be provided to each participant. Limited to 30.

**10:30-11:20 am Session: 98
Prairie B Feb. 7, 2009**

Grade Level: 3-8

Featured Speaker
Murray H. Siegel
Central Arizona College

Engaging Activities to Promote Computational Competency

Generic activities that engage students to maximize their arithmetic skills. Math is fun!

**Next Year's Conference is
February 4, 5, & 6, 2010**

Saturday 10:30 am

10:30-11:20 am Session: 99
Prairie C Feb. 7, 2009

Repeat of #23

Grade Level: K-5

Speaker(s): Micheline Hickenbotham
BHSU

Multiplication & Division Facts

This session will allow teachers to share strategies to help elementary students who struggle with their facts. From the research to the classroom, what works, what practice looks like.

10:30-11:20 am Session:100
Dakota A Feb. 7, 2009

Grade Level: K-12

Speaker(s): Marlene Rothermel
TIE

Journey North: On-line Citizen Science Project

Journey North engages students in a global study of wildlife migration and seasonal change. K-12 students share their own field observations with classmates across North America. During this session we will preview this best practices model for science education.

10:30-11:20 am Session:101
Dakota B Feb. 7, 2009

Repeat of #6

Grade Level: 3-12

Speaker(s): Steven M. Wegman
National Renewable Energy Lab

Wind for Schools

So you want to get a wind energy turbine for your school? Mr. Wegman is the state wind facilitator for wind for school. See www.sdwind.com/wac

Saturday 10:30 am

10:30-11:20 am Session:102
Dakota C Feb. 7, 2009

Repeat of #22

Grade Level: 9-12

Speaker(s): Judy Vondruska
SDSU

2009 International Year of Astronomy

Become involved in promoting astronomy in 2009! Learn about local/national and international resources as well as activities for your students including The Great World Wide Star Count. This session will focus on providing resources and developing ideas for promoting astronomy in 2009.

10:30-11:20 am Session:103
Dakota D Feb. 7, 2009

Repeat of #58

Grade Level: 6-12

Speaker(s): Eugene R. Bormann
US Army Corps of Engineers

Endangered Species of the Missouri River

An introduction to why the least tern, piping plover and pallid sturgeon became endangered and what is being done to restore each population.

**Next Year's Conference is
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Saturday 10:30 am

10:30-11:20 am Session:104
Dakota E Feb. 7, 2009

Repeat of #44

Grade Level: 7-12

Speaker(s): Molly J. TenBroek
McIntosh High School

**Voyages Through Time--An
Astrobiology Science
Curriculum**

The Voyages through Time series takes students on an epic journey through the origin of the universe, planets and life. It is a set of 5 CD's which can be incorporated into your present science class or used to teach a full year of astrobiology. The units are Cosmic Evolution, Planetary Evolution, Origin of Life, Evolution of Life, Hominid Evolution and Evolution of Technology. CD's include lessons, lab activities, videos, images, etc. Sample CD's will be handed out to participants.

10:30-11:20 am Session:105
Dakota F Feb. 7, 2009

Grade Level: 3-8

Speaker(s): Becky Umenthum
Dakota MS Rapid City

Activities with Random Digits

Use pages of random digits for many activities: mental computations (whole numbers, fractions, decimals, and integers), order of operations, place value, and more. You'll receive a handout with activities ready to be used in your classroom.

Saturday 10:30 am

10:30-11:20 am Session:106
Dakota H Feb. 7, 2009

Grade Level: K-12

**Speaker(s): Cathy Mariotti Ezrailson
& Phillip Millard**
USD

**Practicing Safe Science in South
Dakota Schools**

A field study of science teaching practices among K-12 teachers in SD has shown a need for safety information training and support statewide so that we keep our schools and students safe.

12:00 Noon Session:107
Prairie A, B, C Feb. 7, 2009

Grade Level: All

**Facilitators: Cindy Kroon
& Ramona Lundberg**

LUNCH

Announcements
Door Prizes

Saturday 1:00 pm

1:00-1:50 pm **Session:108**
Prairie C **Feb. 7, 2009**

Grade Level: 3-5

Speaker(s): Sandy Ullrich
& Marie Schumacher
Aberdeen Public & Roncalli

MINDS Camp

MINDS Camp is a summer camp for students entering grades 3-5. Campers participate in hands-on, inquiry-based activities in Math and Science revolving around a theme. Some of the themes have been Wetlands, Space, Human Body, Measurement, and Olympics.

1:00-2:50 pm **Session:109**
Dakota A **Feb. 7, 2009**

Grade Level: 9-12

Speaker(s): Julie Olson
Mitchell HS

Power Houses and Fuel Cell Cars

Investigate renewable resources such as wind, solar, and the latest fuel cells. Also take a look at laboratory notebooks.

1:00-1:50 pm **Session:110**
Dakota B **Feb. 7, 2009**

Grade Level: 6-12

Speaker(s): Paul R. Kuhlman
Avon School

Discovery Education 3M Young Scientist Challenge

This session will focus on how to become a teacher of student participants in the Young Scientist Challenge.

Saturday 1:00 pm

1:00-1:50 pm **Session:111**
Dakota C **Feb. 7, 2009**

Repeat of #43

Grade Level: 9-12

Speaker(s): Gregory T. Diersen
Great Plains Lutheran HS

Two Physics Equations Using Algebra and TI-Nspire

Review vertical velocity and acceleration due to gravity while introducing the functions of TI-Nspire. Derive the equations, graph the data two ways, and experience TI-Nspire-CAS.

1:00-2:50 pm **Session:112**
Dakota D **Feb. 7, 2009**

Grade Level: K-5

Speaker(s): Marcia Torgrude
& Penny Smith
TIE & DOE

Making Sense of Geometry in K-5 Classrooms

Is the teaching of geometry out of your comfort zone? That could be because the focus was on terminology, theorems, and proofs rather than reasoning about shapes and relationships. Join us to build your understanding of geometric thought. Enjoy learning geometry through the focus on the four goals for geometry and take the activities and ideas back to your classroom.

1:00-2:50 pm **Session:113**
Dakota E **Feb. 7, 2009**

Grade Level: 9-12

Speaker(s): Pandi Pittman
Wall School District

Bio Fuels

Comparing the energy content and amount of combustion between ethanol and kerosene.

Saturday 1:00 pm

1:00-1:50 pm **Session:114**
Dakota F **Feb. 7, 2009**

Grade Level: K-12

Speaker(s): John D. Hollingsworth
University Center

The Game of Cribbage

Learn to play the game. Discover the many aspects of mathematics involved such as counting, combinatorics, strategy and problem solving. Basically a two-person game. It is accessible at all levels, can be completed in 20 minutes and is fun!

1:00-1:50 pm **Session:115**
Dakota H **Feb. 7, 2009**

Grade Level: K-12

Speaker(s): Cathy Mariotti Ezailson
USD

Year of Science 2009: Possibilities and Opportunities

Why science matters and how we know what we know in science. The Year of Science 2009 provides an opportunity worldwide to participate in monthly events, on-line or face-to-face.

Saturday 2:00 pm

2:00-2:50 pm **Session:116**
Dakota B **Feb. 7, 2009**

Grade Level: 9-12

Speaker(s): Bill Gripentrog
Watertown HS

The Power of "I" Isn't Imaginary

Unlearning the hidden curriculum will be presented. Students are accountable for their work and there is no "opt-out" option.

Saturday 2:00 pm

2:00-2:50 pm **Session:117**
Dakota C **Feb. 7, 2009**

Repeat of #13

Grade Level: 9-12

Speaker(s): Judy Vondruska
SDSU

Clickers in the Classroom

Student response systems provide an opportunity for everyone in your classroom to participate and for you to learn, on the spot, how well your students understand the materials you are teaching. This session will provide hands-on experience with one type of clicker system and look at what research indicates about the use of clickers in the classroom.

3:00-3:50 pm **Session:118**
Dakota C **Feb. 7, 2009**

Grade Level: K-12

Speaker(s): Jean Gomer
& Diana McCann
Deubrook HS & Bon Homme HS

Math Wrap-up & Sharing Session

This is a chance to share your reflections on the sessions you attended at the conference.

3:00-3:50 pm **Session:119**
Dakota F **Feb. 7, 2009**

Grade Level: K-12

Speaker(s): Larry Browning
& James Stearns
SDSU & Groton HS

Science Wrap-up & Sharing Session

This is a chance to share your reflections on the sessions you attended at the conference.

