Program for 2007 Joint Conference

Conference credit will be offered through Dakota Wesleyan University. You may register for one hour of credit at the 499 or 599 level. Attendance at a Thursday night sharing session is required to earn credit from Dakota Wesleyan University. There will be personnel available to register you for the credit on Thursday night from 7:00 to 9:00 pm and on Friday morning from 7:30 to 8:30 am. Check in the hotel lobby for the DWU table. A syllabus listing course requirements will be available at the time of registration. For more information, contact Rocky Von Eye at (605) 995-2625.

Thursday

7 pm

7:00-9:00 pm  Session: 1
Dakota B  Feb. 1, 2007
Grade Level:  K-C

Speaker(s):  Micheline Hickenbothem
SDSTA President

Title:  Science Sharing Session

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

8:30-9:20  Session: 4
Dakota B  Feb. 2, 2007
Grade Level:  K-C

Speaker(s):  Mike Barondeau
Edmunds Central School

Title:  BB Board Molecular Demonstrator for Science

This is a Make-It and Take-It session where you construct an acrylic BB-Board demonstrator for atomic/molecular motion demonstrations. This session is limited to 12 and will cost each participant $15 at the door for materials. Go to http://mb045.k12.sd.us/Ideas/Bbboard.htm to see what you will make.

Friday

8:30 am

8:30-4:20  Session: 3
Mobile Science Lab  Feb. 2, 2007
Grade Level:  K-12

Speaker(s):  Jerry Opbroek
SD Mobile Science Lab

Title:  Mobile Science Lab

The SD Mobile Science Lab will be available for walk-through visits on Friday (all day) and Saturday (morning). Teachers can observe some of the equipment and lab activities available on the MSL. Teachers can also obtain information about getting the MSL to their school.

8:30-4:20  Session: 3
Mobile Science Lab  Feb. 2, 2007
Grade Level:  K-12

Speaker(s):  Jerry Opbroek
SD Mobile Science Lab

Title:  Mobile Science Lab

The SD Mobile Science Lab will be available for walk-through visits on Friday (all day) and Saturday (morning). Teachers can observe some of the equipment and lab activities available on the MSL. Teachers can also obtain information about getting the MSL to their school.

8:30-9:20  Session: 4
Dakota B  Feb. 2, 2007
Grade Level:  K-C

Speaker(s):  Mike Barondeau
Edmunds Central School

Title:  BB Board Molecular Demonstrator for Science

This is a Make-It and Take-It session where you construct an acrylic BB-Board demonstrator for atomic/molecular motion demonstrations. This session is limited to 12 and will cost each participant $15 at the door for materials. Go to http://mb045.k12.sd.us/Ideas/Bbboard.htm to see what you will make.
Friday  8:30 am
8:30-9:20  Session:  5
Dakota C           Feb. 2, 2007
Grade Level:  K-2
Repeat of #108
Speaker (s):  Marcy Farrand
              Wilson Elementary-Rapid City
Title:  How to Quickly and Easily Assess a Child’s Working Number

This session will present a quick and easy way to find out where a primary child is with working with basic facts. Activities with little prep time or materials will be shown that help improve this newly found working number.

Friday  8:30 am
8:30-9:20  Session:  6
Dakota D           Feb. 2, 2007
Grade Level:  5-7
Speaker (s):  Betsy L. Schamber
              Madison Middle School
Title:  Spectacular Cells!

A compilation of hands-on, student & teacher friendly activities that can be used to teach about cells.

Friday  8:30 am
8:30-9:20  Session:  7
Dakota E           Feb. 2, 2007
Grade Level:  8-12
Speaker (s):  Lonnie Bellman
              CPM Educational Program
Title:  Looking for a Standards-Based Curriculum? CPM May Be Your Answer.

Participants will explore one of the US Department of Education "Exemplary" programs. Philosophy, professional development and hands-on activities will make up the presentation.
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
<th>Grade Level</th>
<th>Speaker(s)</th>
<th>Title</th>
<th>Description</th>
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<tbody>
<tr>
<td>9:30-10:20</td>
<td>11</td>
<td>Prairie C</td>
<td>9-12</td>
<td>Bob Schuh &amp; Marie Nehl McIntosh High School</td>
<td>Graphing Special Functions on the TI-84</td>
<td>The session will demonstrate how to use the TI-84 logical operators to graph piecewise functions, linear functions on the number line, and unusual functions. Calculators will be provided.</td>
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<tr>
<td>9:30-10:20</td>
<td>12</td>
<td>Dakota A</td>
<td>K-1</td>
<td>Cynthia C. Chandler BHSU</td>
<td>Why Do Young Children Count Funny?</td>
<td>An explanation of how children develop number sense. I will use videos of young children to show how children construct number over time.</td>
</tr>
<tr>
<td>9:30-10:20</td>
<td>14</td>
<td>Dakota C</td>
<td>2-5</td>
<td>Steven Rokusek SD Public Broadcasting</td>
<td>Math &amp; Science Activities for Elementary Students</td>
<td>This presentation will cover science and math activities using resources from SD Public Broadcasting. Multimedia materials will be provided for 20 teachers.</td>
</tr>
<tr>
<td>9:30-10:20</td>
<td>15</td>
<td>Dakota D</td>
<td>7-C</td>
<td>Prospective Math Teachers SDSU Students Carla Roth, facilitator SDSU Students</td>
<td>Q &amp; A--Help Us Out</td>
<td>SDSU Students Joshua Stoebner, Eric Swanson, Shannon Waltner, Podney Palo, Arend Kuyper, Michael Loney, and others would like to discuss first year teacher issues, concerns, and preparation. Bring your thoughts and advice for these young professionals.</td>
</tr>
</tbody>
</table>
Friday 9:30 am

9:30-10:20 Session: 16
Dakota E Feb. 2, 2007
Grade Level: 5-12

Speaker (s): Lisa Dorschner
SD Agriculture in the Classroom

Title: What the Heck Is Biotech?

Join us as we take a closer look at this ever-changing field. We will bring biotechnology to life and share with you the strategies and activities utilized in our middle school teacher workshop by the same title. Starting with cells and working up to extracting DNA, you will experience a wealth of interactive and hands-on activities. This is a sampling of our workshop funded by a 2005 Monsanto/AITC Consortium grant.

9:30-10:20 Session: 17
Dakota F Feb. 2, 2007
Grade Level: 8-C

Speaker (s): Larry Browning
SDSU

Title: Vernier's Wireless Dynamics Sensor System

The WKSS measures altitude, force, and accelerations in three dimensions and instantly transfers the data to a computer using Bluetooth technology.

Friday 9:30 am

9:30-10:20 Session: 18
Dakota H Feb. 2, 2007
Repeat of #83
Grade Level: K-8

Speaker (s): Dianne Miller
SD Project Learning Tree Inc.

Title: No Child Left Inside

PLT has been helping bring quality environmental education into classrooms for over 30 years. Attend this session and access complete online resources to gain a state-of-the-art curriculum resource packed with 96 multi-disciplinary activities each tailored to specific grade levels and learning objectives. Our new guide incorporates the latest innovations in education: reading strategies are embedded within activities, technology connections, assessment strategies, and suggestions for differentiated instruction helping reach students with varying needs and talents.

9:30-11:20 Session: 19
Symposium Feb. 2, 2007
Grade Level: 9-C

Speaker (s): Gary Hagerty & others
SD Universities

Title: College Forum: Transition from High School to College

Representatives from the mathematics departments of the higher education institutions will discuss topics relating to the transition from high school to college. This year's topics will include: Math requirements for different majors at the various universities, curriculum alignment for college prep classes, and a state math competition for high school students.
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<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
<th>Grade Level</th>
<th>Speaker(s)</th>
<th>Title</th>
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<tr>
<td>9:30-11:20</td>
<td>20</td>
<td>Salon</td>
<td>7-C</td>
<td>Judy Vondruska</td>
<td>AstroMath: Sizing the Solar System</td>
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<td>SDSU</td>
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<td>Have students use astronomy to learn number</td>
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<td>sense, ratios, and scaling! This session will</td>
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<td>focus on developing scale-models of the planets</td>
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<td>and a scaled representation of the distances</td>
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<td>in the solar system. These activities are</td>
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<td></td>
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<td>appropriate in both math and science classes.</td>
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<td>Weather permitting, part of the activity will</td>
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<td></td>
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<td>be done outdoors.</td>
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<td>9:30-11:20</td>
<td>21</td>
<td>Tour Bus</td>
<td>K-C</td>
<td>Micheline Hickenbotham</td>
<td>Field Trip to the Ethanol Plant</td>
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<td>Guided tour of the Ethanol Plant to learn</td>
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<td>about the process of making biodiesel. Limited</td>
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<td>to 20 participants. Tickets available at the</td>
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<td>registration table. Transportation provided.</td>
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<td>10:30-11:20</td>
<td>22</td>
<td>Prairie A</td>
<td>11-12</td>
<td>Darwin Daugaard</td>
<td>Doc's Master Plan-Chemistry</td>
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<td>Dell Rapids Public HS</td>
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<td>Doc's Master Plan is used to find electron</td>
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<td>configuration, notation, quantum numbers and</td>
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<td>help with orbital notation of the elements.</td>
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<td>10:30-11:20</td>
<td>23</td>
<td>Prairie B</td>
<td>K-12</td>
<td>Samra Trask</td>
<td>Literature in Math</td>
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<td>Wall School</td>
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<td>Children's books are not just for children</td>
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<td>any more! Explore fun new ways to incorporate</td>
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<td>picture books into your math class.</td>
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<td>10:30-11:20</td>
<td>24</td>
<td>Prairie C</td>
<td>10-C</td>
<td>Harlan J. Heitz</td>
<td>Electron Configuration Bingo</td>
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<td>Presentation College</td>
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<td>Join us to share in a very simple game of</td>
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<td>Bingo using electron configurations. You will</td>
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<td>receive two dozen Bingo cards, complete with</td>
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<td>configurations.</td>
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<td>10:30-11:20</td>
<td>25</td>
<td>Dakota A</td>
<td>2-4</td>
<td>Brenda Danielson</td>
<td>Let's Think About Math</td>
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<td>Scotland Elementary School</td>
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<td>Problem solving strategies and thinking skill</td>
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<td>activities for the math class.</td>
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</tbody>
</table>
10:30-11:20  
Dakota B  
Feb. 2, 2007  
Grade Level: K-12  
Repeat of #71  
Speaker(s): Angelo Casaburri & Arnie Lund  
NASA/NES School-Kadoka  
Title: **Engineering Design**  
**Challenges: Spacecraft Structures and Thermal Protection Systems**

The NASA Engineering Design Challenges connects students with the challenges of NASA engineers as they design the next generation of aerospace vehicles. With simple and inexpensive materials, students engage in related design challenges in their classrooms by designing, building, and testing models that meet specified criteria.

10:30-11:20  
Dakota C  
Feb. 2, 2007  
Grade Level: 6-10  
Speaker(s): Cheryl Thaler  
Wagner Community School  
Title: **Middle School Minds in Motion**

Enhance student learning through movement! Get your students up and moving while reinforcing the core content standards of students 6-8. Students are physically active, more alert and have better concentration. With over 100 activities, Minds in Motion will energize your classroom, enhance fine and large motor coordination and improve the overall learning environment. Attend this session and be one of the first to receive this valuable resource.

10:30-11:20  
Dakota D  
Feb. 2, 2007  
Grade Level: K-5  
Speaker(s): Chris Larson  
SDSU  
Title: **Geometry Activities for Elementary Teachers**

A variety of activities that explore geometry will be presented. Lots of fun ways to introduce young children to various concepts in geometry.

10:30-11:20  
Dakota E  
Feb. 2, 2007  
Grade Level: 8-12  
Speaker(s): Lonnie Bellman  
CPM Educational Program  
Title: "**I See Another Way!**: How Multiple Representations Make Algebra Accessible"

Participate in activities that help students find the connection between a rule, graph, table and context, enabling them to develop the ability to solve problems multiple ways.

10:30-11:20  
Dakota F  
Feb. 2, 2007  
Grade Level: 3-12  
Speaker(s): Kenneth Graupmann  
White River School District  
Title: **Science & Math Education Using NASA Materials**

Learn how to use NASA websites to add technology to both math and science classes.
Title: **Math in Motion: Parabolas and Projectiles**

How do the values of the coefficients in a quadratic equation change the way the graph changes? This will be explored. A digital camera will then be used to capture the motion of a ball and show the connections between the math and the motion.

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**Friday Noon**

12:00-1:00 pm  
Session: 31  
Prairie A, B, C  
Feb. 2, 2007  
Grade Level:

**Presiders:** Micheline Hickenbotham & Bill Gripentrog

**Title:** **LUNCH**
- Angelo Casaburri-NASA
- Presentation of the first annual Kelly Lane Earth and Space Science Grant
- Door prizes

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**Friday 1:30 pm**

1:30-4:20  
Session: 33  
Prairie B  
Feb. 2, 2007  
Grade Level: K-6

**Featured Speaker**  
Judith Hankes  
University of Wisconsin-Oshkosh

**Title:** **CGI: A Culturally Responsive Approach to Teaching Mathematics**

This session focuses on the content of Cognitively Guided Instruction. CGI is an extensively researched approach for teaching elementary level mathematics. CGI is also recognized as being a culturally responsive approach for teaching mathematics to Native American students. The session will include discussion of developing mathematical reasoning through story problems, developing base ten understanding, and NCTM standards-based methods of instruction. Research has shown that implementation of CGI will help teachers prepare students for reform-based state assessments.
Friday

1:30-2:20  
Session: 34  
Feb. 2, 2007

Prairie C  
Repeat of #82  
Grade Level: K-C  

Speaker(s): Tony Morrow  
Education Technology Partners

Title: Automated Data-Driven Math Intervention with Individualized Instruction for K-Adult

Learn how students are achieving average gains of 2 grades in math in 10 hours—without detracting from other studies! Explore effective technology interventions and FREE scientifically based, web delivered professional development resources from the US DOE. Observe the impact on teaching and learning plus the acceleration of math skills acquisition.

1:30-2:20  
Session: 35  
Feb. 2, 2007

Dakota A  
Grade Level: 7-C

Speaker(s): Jay H. Berglund  
Gettysburg HS

Title: Introduction to TI-Smart View

Learn how to use TI-Smart View, the TI-84 Plus Graphing Calculator Emulator. TI-SmartView is not just for SMART Boards. Everyone attending will receive a trial version of Smart View. One free copy of Smart View will be given away as a door prize.
Friday 1:30 pm

1:30-2:20  
Dakota B  
Repeat of #86  
Grade Level: 1-12  

Speaker(s): Angelo Casaburri  
& Arnie Lund  
NASA/NES School-Kadoka  

Title: Robonautics--Humans & Robots  
Learn about the robotics features on NASA’s Space Shuttle and International Space Station. Explore design challenges for making and using robotic components such as robotic arms, hands, and fingers from inexpensive materials. Education Briefs included.

1:30-2:20  
Dakota C  
Grade Level: K-3  

Speaker(s): Jan Deuter  
Miller Area School  

Title: Math in Motion: Using a White Board  
Come see how the white board can be used to demonstrate some difficult math concepts to students by the motion of objects. The demonstrations shown are based on the SD Mathematics Standards for kindergarten through 3rd grade. Handouts, demonstrations, and question/answer time will provide help in the understanding of how powerful this technology is for our 21st century students.

Friday 1:30 pm

1:30-3:20  
Dakota D  
Grade Level: 4-8  

Speaker(s): Becky Umenthum  
Dakota Middle School, Rapid City  

Title: Using Problems to Encourage Algebraic Thinking  
Come prepared to work on engaging problems that can be solved in more than one way. Students of different ages and/or abilities will find success with these problems. You’ll also learn different ways of putting students in groups and setting up behavior norms.

1:30-2:20  
Dakota E  
Grade Level: 6-8  

Speaker(s): Patrick Wenzl  
Holt, Rinehart & Winston  

Title: Holt High School Science 2008 Launch  
Come for the launch of the new 2008 editions of Holt, Rinehart & Winston’s high school biology and physical science programs. See a demonstration of Live Ink, a new technology tool for improving reading comprehension in science. Also pick up a new lab idea or two! Complimentary materials! Door prizes!
Friday  1:30 pm

1:30-2:20       Session: 40
Dakota F       Feb. 2, 2007
Grade Level: 9-12

Speaker(s): Jenzi Kellogg-Andrus & Lori Keleher
Watertown HS & CORD Communications

Title: PSI-SIM: Simulations for Biology, Chemistry & Physics

Try out 5 new software modules designed to immerse students in a dynamic learning environment that places them in control of their own success. Also enter to win one of the 5 modules to be given away this session.

Friday  2:30 pm

2:30-3:20       Session: 45
Prairie A       Feb. 2, 2007
Grade Level: K-12

Featured Speaker
Speaker: Carol Greco
MESSENGER Fellow Educator

Title: Solar System Science/ MESSENGER Mission to Mercury

Workshop attendees will receive training on MESSENGER Education Modules, inquiry-based, hands-on lessons for grades K-12 and receive suggestions on how to use these lessons in the classroom.
Friday 2:30 pm

Prairie C
Repeat of #89
Grade Level: K-C

Speaker(s): Tony Morrow
Education Technology Partners

Title: Math & Science--Formative Instruction with Technology for K-Adult

Learn how students are achieving rapid gains in all subject areas with the
A+nyWhere Learning System -- http://www.amered.com/
This affordable, proven Integrated Learning System provides
formative instruction based on diagnostic and prescriptive--SD content standards-aligned assessment.
Delivers K-Adult comprehensive content with flexible delivery.
Explore effective technology interventions and FREE scientifically-based, web-delivered professional development
resources from the US DOE.

Friday 2:30 pm

Dakota A
Grade Level: K-4

Speaker(s): Brenda Danielson
Scotland Elementary School

Title: Let's Sing Science

A collection of songs, poems, and activities to correlate with your science curriculum.

Friday 2:30 pm

Dakota B
Repeat of #94
Grade Level: K-12

Speaker(s): Angelo Casaburri & Arnie Lund
NASA/NES School-Kadoka

Title: What's Cooking Onboard the International Space Station

Eating and drinking are favorite everyday activities on Earth. However, how they are
packaged and eaten is greatly affected by the unique microgravity environment of space.
Learn about food preparation and menu development for space flight.
Educator's Guide included.

Dakota C
Repeat of #102
Grade Level: 8-12

Speaker(s): Sheila McQuade
O'Gorman HS

Title: Hands-on Geometry Activities

Who says Play-Doh is for pre-school? In this session, I will share ideas for using
Play-Doh and other easily acquired (& affordable) "toys" for Geometry.

2:30-4:20  Session: 49.5  Feb. 2, 2007
Dakota E
Grade Level: 6-8

Speaker(s): Patrick Wenzl
Holt, Rinehart & Winston

Title: Classroom Forensics & Scientific Inquiry

Enjoy the experience of real-world forensics and experience forensic science techniques
designed for the middle school classroom.
Complimentary materials! Door Prizes!
Friday 2:30 pm
Dakota F  Grade Level:  6-12
Speaker (s):  Lori Keleher  
CORD Communications
Title:  Math at Work
Challenge students' mathematics skills with real-life simulations.  Receive a free demo-disk and enter to win one of the 5 interactive CD-ROMs to be given away this session!

Dakota G  Grade Level:  9-C
Speaker (s):  James Stearns  
SD AAPT
Title:  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 two cents.)

Dakota H  Grade Level:  5-12
Repeat of #87
Speaker (s):  Clark Bennett  
USD
Title:  South Dakota Science Olympiad
An introduction to South Dakota Science Olympiad. Information about participating in the South Dakota Science Olympiad State Tournament.

Friday 2:30 pm
Symposium  Grade Level:  7-12
Speaker (s):  Richard A. Reid  
SDSU
Title:  Connecting Math to Careers: SDSU Youth Programs
This presentation will provide an overview of the camps and programs at SDSU designed to expose students to college majors in the Science, Technology, Engineering, and Math disciplines (STEM) and connect those majors to challenging and exciting careers.

Friday 3:30 pm
3:30-4:20  Session:  54  Feb. 2, 2007
Prairie A  Grade Level:  4-12
Speaker (s):  Kenneth Graupmann  
White River School District
Title:  Hands-on Plastic
Learn how to use a free kit of activities from the American Plastics Council. Attendees will be able to order the kit online.

Repeat of #99
Prairie C  Grade Level:  5-C
Speaker (s):  Brant Miller & Robb Winter  
SDSM&T
Title:  Receive $5000 to Participate in Research Activities at SDSM&T This Summer
Come get information about the SDSM&T Research Experience for Teachers (RET) program and hear participant accounts of the program’s impact on their professional practice.
Friday  2:30 pm

3:30-4:20  Session: 56
Dakota B  Feb. 2, 2007
Repeat of #101
Grade Level: K-12
Speaker(s): Angelo Casaburri
            & Arnie Lund
            NASA/NES School-Kadoka
Title: Rocketry-Flight Testing
       Newton’s Laws

Learn about the history, scientific principles, and mathematics of rockets. Instructional
techniques for constructing straw rockets, industrial-strength paper rockets, and two-liter
water rockets using inexpensive materials will be investigated. Educator’s Guide included.

Friday  3:30 pm

3:30-4:20  Session: 59
Dakota F  Feb. 2, 2007
Grade Level:
Speaker(s): Janet Kawecki
            Scott Foresman Publishing Co.
Title: "Investigations 2009" - Make an Impact!

Come and see "Investigations in Number, Data and Space 2009." A complete
comprehensive mathematics curriculum will make an impact through challenging
investigations, student understandings and assessment.

3:30-4:20  Session: 60
Dakota G  Feb. 2, 2007
Grade Level: 8-C
Facilitators: AAPT Officers
             American Association of Physics Teachers
Title: AAPT Meeting

This is a meeting of the South Dakota chapter of the American Association of
Physics Teachers.

3:30-4:20  Session: 61
Dakota H  Feb. 2, 2007
Grade Level: 9-C
Speaker(s): Gary Hagerty
            BHSU
Title: Using History to Improve Outcomes in a Math Course

Beginning in the fall of 2003, BHSU College Algebra faculty have been developing
history modules and using these modules to increase both learning outcomes and the
students’ perceptions of mathematics. This presentation will highlight the
implementation and the results.
Friday  4:30 pm

4:30-5:30
Dakota C
Grade Level: All

Facilitator: Bill Gripentrog, President SDCTM

Title: SDCTM Business Meeting

Friday  5:00 pm

6:00-7:00
Pre-function area
Grade Level: All

Title: RECEPTION

Sponsored by Holt, Rinehart, Winston

Friday  7:00 pm

7:00-9:00 pm
Prairie A, B, C
Grade Level: K-C

Featured Speaker
Cathy Seeley, Speaker
Past President, NCTM

BANQUET
Saturday 7:00 am

7:00-8:00 am  
Session: 66  
Feb. 3, 2007  
Library  
Grade Level: K-12  

Speaker(s): Diana McCann  
& Ramona Lundberg  
Presidential Award Coordinators  

Title: Presidential Award Breakfast  
All past and present awardees (math and science) are invited to join us for breakfast.

Saturday 8:30 am

8:30-11:20  
Session: 66.5  
Feb. 3, 2007  
Mobile Science Lab  
Grade Level: K-12  

Speaker(s): Jerry Opbroek  
SD Mobile Science Lab  

Title: Mobile Science Lab  
The SD Mobile Science Lab will be available for walk-through visits on Saturday (morning). Teachers can observe some of the equipment and lab activities available on the MSL. Teachers can also obtain information about getting the MSL to their school.

Saturday 8:30 am

8:30-11:30  
Session: 67  
Feb. 3, 2007  
Prairie A  
Repeat of #33  
Grade Level: K-6  

Featured Speaker  
Judith Hankes  
University of Wisconsin-Oshkosh  

Title: CGI: A Culturally Responsive Approach to Teaching Mathematics  
This session focuses on the content of Cognitively Guided Instruction. CGI is an extensively researched approach for teaching elementary level mathematics. CGI is also recognized as being a culturally responsive approach for teaching mathematics to Native American students. The session will include discussion of developing mathematical reasoning through story problems, developing base ten understanding, and NCTM standards-based methods of instruction. Research has shown that implementation of CGI will help teachers prepare students for reform-based state assessments.

8:30-9:20  
Session: 68  
Feb. 3, 2007  
Prairie B  
Repeat of #45  
Grade Level: K-12  

Featured Speaker  
Carol Greco  
MESSENGER Fellow Educator  

Title: Solar System Science/ MESSENGER Mission to Mercury  
Workshop attendees will receive training on MESSENGER Education Modules, inquiry-based, hands-on lessons for grades K-12 and receive suggestions on how to use these lessons in the classroom.
### Saturday 8:30 am

**8:30-10:20**  
Prairie C  
Grade Level: 7-C  

**Speaker(s):** Dr. Rocky VonEye  
& Dr. Michael Catalano  
DWU

**Title:** What Do You Do with Notebook Computers in the Mathematics Classroom?

This session will concentrate on Dr. Catalano’s NSF grant and how we acquired our mobile laptop (notebooks) lab. We will also discuss how we incorporate the computers into our daily lesson plans for everything from note taking to application usage and demonstrations. Dr. Catalano will also discuss applications from his College Algebra book that is in the second draft.

**8:30-9:20**  
Dakota A  
Grade Level: K-8  

**Speaker(s):** Gary Hagerty  
BHSU

**Title:** Curriculum Focal Points: Why Is This Document Needed?

In September 2006, NCTM published a document entitled Curriculum Focal Points for Pre-Kindergarten through Grade 8—A Quest for Coherence. This document is designed to build on the Principles and Standards document (2000). This presentation will be a discussion of why items like quick recall and fluency with standard algorithms are returning to prominence. The discussion will be supported with views from educational psychology.

### Saturday 8:30 am

**8:30-9:20**  
Dakota B  
Repeat of #26  
Grade Level: K-12  

**Speaker(s):** Angelo Casaburri  
& Arnie Lund  
NASA/NES School-Kadoka

**Title:** Engineering Design Challenges: Spacecraft Structures and Thermal Protection Systems

The NASA Engineering Design Challenges connects students with the challenges of NASA engineers as they design the next generation of aerospace vehicles. With simple and inexpensive materials, students engage in related design challenges in their classrooms by designing, building, and testing models that meet specified criteria.

**8:30-9:20**  
Dakota C  
Grade Level: 6-8  

**Speaker(s):** Jeremiah Dibley  
Pulluin Software

**Title:** Videogames in Science Class?

Find out how teachers can harness the power of videogames to help students learn science. Get access to 4 videogames designed specifically for the middle school science classroom.
Saturday 8:30 am

8:30-10:20 Session: 73
Dakota D
Feb. 3, 2007
Grade Level: 7-12

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

Title: Ornamental Geometry-A Capital Experience

Often students struggle with visualizing 3-dimensional objects when viewed as a 2-dimensional net. A way to make the concept concrete for students is to construct ornaments for decorating Christmas trees. The session will allow participants to build some basic shapes and get ideas for developing activities for creating more elaborate constructions. Student ornaments and the final products of their work will be shared.

8:30-9:20 Session: 74
Dakota E
Feb. 3, 2007
Grade Level: 4-6

Speaker(s): Julie Olson
Mitchell HS

Title: Elementary Crime Scene

Come investigate a crime scene. Materials are appropriate for upper elementary students. Handouts provided.

Saturday 8:30 am

8:30-9:20 Session: 76
Library
Feb. 3, 2007
Grade Level: K-12

Speaker(s): Diana McCann
& Ramona Lundberg
Presidential Award Coordinators

Title: Tips for Winning Money

Would you like to receive $10,000? Every year, South Dakota is able to give two $10,000 awards, one in science and one in math. The Presidential Award is Sponsored by the White House and the National Science Foundation. Come to this session to be assigned a mentor and/or to learn how to complete an application.

Saturday 9:30 am

9:30-10:20 Session: 77
Prairie B
Feb. 3, 2007
Repeat of #32
Grade Level: K-12

Featured Speaker
Richard T. Sherman
Oglala Sioux Parks & Rec.

Title: Ethnobotany: Great Plains Plants through the Lakota Lens on Learning

This presentation will impart an introduction to plants traditionally important to Indian tribes of the Great Plains. Participants will learn about a few of the common plants native to the Great Plains region and their cultural significance to American Indians, including their uses for food, medicinal and ceremonial purposes. The presentation will include information on how to identify and harvest wild plants, and how to avoid poisonous look-alikes. This is part of an effort to reeducate young people to become more connected with their local environment.
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<tr>
<th>Time</th>
<th>Session</th>
<th>Grade Level</th>
<th>Speaker(s)</th>
<th>Title</th>
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<tbody>
<tr>
<td>9:30-10:20</td>
<td>78</td>
<td>1-4</td>
<td>Brenda Danielson</td>
<td>Do the Math</td>
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<tr>
<td></td>
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<td>Scotland Elementary School</td>
<td>A series of math activities adaptable to various curriculum skills designed to have children moving and active as they practice math.</td>
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<td>9:30-10:20</td>
<td>79</td>
<td>K-12</td>
<td>Angelo Casaburri &amp; Arnie Lund</td>
<td>Repeat of #13</td>
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<td>NASA/NES School-Kadoka</td>
<td>Make the Sky Your Classroom</td>
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<td>Learn how to fly and control airplanes, aircraft, lighter-than-air aircraft and kites by constructing them from locally obtainable and inexpensive materials. Educator’s Guide included.</td>
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<td>9:30-10:20</td>
<td>80</td>
<td>9-C</td>
<td>Kurt Cogswell</td>
<td>SDSU Calculus Gateway Exam: What and Why?</td>
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<td>SDSU</td>
<td>The Head of the SDSU Math/Stat Department will explain the Gateway Exam that will be required of all Calculus I students starting Fall 2007. The test is designed to test for elementary algebra and trigonometry skills.</td>
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<tr>
<td>9:30-11:20</td>
<td>81</td>
<td>K-C</td>
<td>Chad R. Tussing</td>
<td>Project WILD</td>
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<td>SD GFP-Project Wild</td>
<td>Take part in some hands-on, fun-filled activities from the award-winning Project WILD curricula. Project WILD was designed to teach about fish &amp; wildlife conservation using proven methods that your students will love. Participants who opt to extend their participation to 6 hours via WebCT will receive the free curriculum. Or extend to 15 hours and receive one college credit for $40.</td>
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<td>9:30-10:20</td>
<td>82</td>
<td>K-12</td>
<td>Tony Morrow</td>
<td>Automated Data-Driven Math Intervention with Individualized Instruction for K-Adult</td>
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<td>Education Technology Partners</td>
<td>Learn how students are achieving average gains of two grades in Math in 10 hours—without detracting from other studies! Explore effective technology interventions and FREE scientifically-based, web delivered professional development resources from the US DOE. Observe the impact on teaching and learning plus the acceleration of math skills acquisition.</td>
</tr>
</tbody>
</table>
Saturday 9:30 am

9:30-11:20  Session:  83
Dakota H  Feb. 3, 2007
Repeat of #18
Grade Level:  K-8
Speaker(s):  Dianne Miller
SD Project Learning Tree Inc.

Title:  No Child Left Inside

PLT has been helping bring quality environmental education into classrooms for over 30 years. Attend this session and complete online resources to gain a state-of-the-art curriculum resource packed with 96 multi-disciplinary activities each tailored to specific grade levels and learning objectives. Our new guide incorporates the latest innovations in education: reading strategies are embedded within activities, technology connections, assessment strategies, and suggestions for differentiated instruction helping reach students with varying needs and talents.

Saturday 10:30 am

10:30-11:20  Session:  85
Dakota A  Feb. 3, 2007
Grade Level:  K-5
Speaker(s):  Jan Martin
SD Dept. of Education

Title:  SD Counts-Best Practices at Work

The session will provide a brief overview of SD Counts, a K-5 math professional development project. The focus will be on research-based strategies that any teacher can implement in the classroom, so that students can be active learners of mathematics.

9:30-10:20  Session:  84
Symposium  Feb. 3, 2007
Grade Level:  K-12
Speaker(s):  Shannon Kortan
2006 JFMF Awardee

Title:  Japan Fulbright Memorial Fund Award

Want to go to Japan for free? JFMF Award recipients travel with all expenses paid to study the Japanese culture and educational system. Come for more information about applying and for details from my trip in November. The JFMF is open to all K-12 educators.

10:30-11:20  Session:  86
Dakota B  Feb. 3, 2007
Repeat of #36
Grade Level:  1-12
Speaker(s):  Angelo Casaburri & Arnie Lund
NASA/NES School-Kadoka

Title:  Robonautics--Humans & Robots

Learn about the robotics features on NASA’s Space Shuttle and International Space Station. Explore design challenges for making and using robotic components such as robotic arms, hands, and fingers from inexpensive materials. Education Briefs included.
**Saturday  10:30 am**

10:30-11:20  
**Session:** 87  
**Dakota C**  
Feb. 3, 2007  
**Repeat of #52**  
**Grade Level:** 5-12  
**Speaker(s):** Clark Bennett  
USD  
**Title:** **South Dakota Science Olympiad**  
An introduction to South Dakota Science Olympiad. Information about participating in the South Dakota Science Olympiad State Tournament.

10:30-11:20  
**Session:** 88  
**Dakota D**  
Feb. 3, 2007  
**Grade Level:** 8-C  
**Speaker(s):** Marvin Gamble  
USD  
**Title:** **Multiplying Mentally**  
Different techniques will be discussed on multiplying mentally.

10:30-11:20  
**Session:** 89  
**Dakota E**  
Feb. 3, 2007  
**Repeat of #46**  
**Grade Level:** K-12  
**Speaker(s):** Tony Morrow  
Education Technology Partners  
**Title:** **Math & Science--Formative Instruction with Technology for K-Adult**  
Learn how students are achieving rapid gains in all subject areas with the A+nyWhere Learning System -- http://www.amered.com/ This affordable, proven Integrated Learning System provides formative instruction based on diagnostic and prescriptive--SD content standards-aligned assessment. Explore effective technology interventions and FREE scientifically-based, web-delivered PD resources from the US DOE.

**Saturday  10:30 am**

10:30-11:20  
**Session:** 90  
**Dakota G**  
Feb. 3, 2007  
**Grade Level:** 4-8  
**Speaker(s):** Sheila McQuade  
O'Gorman High School  
**Title:** **Algebra Tiles**  
Algebra Tiles are a great tool for teaching algebra. In this session, we will focus on their use in teaching basic algebra skills in upper elementary and junior high.

10:30-11:20  
**Session:** 91  
**Symposium**  
Feb. 3, 2007  
**Repeat of #43**  
**Grade Level:** K-C  
**Speaker(s):** Chuck Holmstrom  
SDRS Board of Trustees  
**Title:** **Your Retirement**  
Information, questions, and maybe some answers.

**Saturday  12:00 Noon**

12:00-1:00 pm  
**Session:** 92  
**Prairie A, B**  
Feb. 3, 2007  
**Grade Level:**  
**Speaker(s):** Bill Gripentrog  
& Micheline Hickenbotham  
**Title:** **LUNCH**  
- Door prizes
Saturday  1:00 pm

1:00-1:50  Session: 93
Prairie B  Feb. 3, 2007
Repeat of #12
Grade Level: K-1
Speaker (s): Cynthia Chandler
          BHSU
Title: Why Do Young Children Count Funny?
An explanation of how children develop number sense. I will use videos of young children to show how children construct number sense over time.

Saturday  1:00 pm

1:00-1:50  Session: 94
Dakota B  Feb. 3, 2007
Repeat of #48
Grade Level: K-12
Speaker (s): Angelo Casaburri & Arnie Lund
          NASA/NES School-Kadoka
Title: What's Cooking Onboard the International Space Station
Eating and drinking are favorite everyday activities on Earth. However, how they are packaged and eaten is greatly affected by the unique microgravity environment of space. Learn about food preparation and menu development for space flight. Educator's Guide included.

Saturday  1:00 pm

1:00-1:50  Session: 95
Dakota C  Feb. 3, 2007
Grade Level: K-12
Speaker (s): Lori Keleher, NBCT
          Wolsey-Wessington HS
Title: Moving Education Forward . . Through National Board Certification
National Board Certification, offered through the National Board for Professional Teaching Standards evaluates and encourages quality teaching. Learn more here!

Saturday  1:00 pm

1:00-1:50  Session: 96
Dakota D  Feb. 3, 2007
Grade Level: 7-12
Speaker (s): G-Trog & K-Dog
          No affiliation listed to protect their schools
Title: Mathematical Idol: Command Performance
Following on the heels of a "Standing Room Only" crowd last year, this infamous duo returns. In their words, "We've made fools of ourselves in front of our students for years. Now it's time to do it in front of our colleagues." The ability to carry a tune, sing, or have rhythm is NOT a requirement for this session.

Saturday  1:00 pm

1:00-1:50  Session: 97
Dakota E  Feb. 3, 2007
Grade Level: 9-12
Speaker (s): Julie Olson
          Mitchell HS
Title: Technology in the Science Classroom
What works? Ideas--favorite websites--bring your ideas to share too!
Saturday 1:00 pm

1:00-1:50
Dakota F
Grade Level: 6-8
Speaker (s): Dr. Sharon Vestal
SDSU
Title: Problem Solving in Grades 6-8
I will present information gathered from an NCTM e-workshop.

Saturday 2:00 pm

2:00-1:50
Dakota B
Grade Level: K-12
Speaker (s): Angelo Casaburri & Arnie Lund
NASA/NES School-Kadoka
Title: Rocketry-Flight Testing Newton's Laws
Learn about the history, scientific principles, and mathematics of rockets. Instructional techniques for constructing straw rockets, industrial-strength paper rockets, and two-liter water rockets using inexpensive materials will be investigated. Educator's Guide included.

Saturday 2:00 pm

2:00-2:50
Dakota C
Grade Level: 8-12
Speaker (s): Sheila McQuade
O'Gorman HS
Title: Hands-on Geometry Activities
Who says Play-Doh is for pre-school? In this session, I will share ideas for using Play-Doh and other easily acquired (& affordable) "toys" for Geometry.

Saturday 1:00 pm

1:00-1:50
Dakota G
Grade Level: 5-C
Speaker (s): Brant Miller & Robb Winter
SDSM&T
Title: $5000 to Participate in Research Activities at SDSM&T This Summer
Come get information of the SDSM&T Research Experience for Teachers (RET) program and hear participant accounts of the program's impact on their professional practice.

Saturday 2:00 pm

2:00-3:50
Dakota A
Grade Level: K-5
Speaker (s): Jan Martin
SD Dept. of Ed
Title: Algebra--Not Me!!
The session will be focused on strategies which promote and develop algebraic thinking at the elementary level. Ways of representing student thinking and assessing growth will be explored.
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<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
<th>Grade Level</th>
<th>Title</th>
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<tbody>
<tr>
<td>2:00-2:50</td>
<td>103</td>
<td>Dakota D</td>
<td>6-12</td>
<td>Metric Day Madness</td>
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<tr>
<td></td>
<td></td>
<td>Cindy Kroon</td>
<td>Montrose HS</td>
<td>Each October 10th the geeks of the world</td>
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<td>celebrate Metric Day. (10-10 get it?!?)</td>
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<td>Join us for a round of Metric Olympics,</td>
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<td>an activity to celebrate the day with</td>
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<td>estimation, measurement, and metric</td>
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<td>calculations. Activities will be</td>
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<td>hands-on and feet-on.</td>
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<td>2:00-2:50</td>
<td>104</td>
<td>Dakota E</td>
<td>9-12</td>
<td>Fitness-the Scientific Way</td>
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<tr>
<td></td>
<td></td>
<td>Julie Olson</td>
<td>Mitchell HS</td>
<td>Use science to encourage students to be</td>
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<td>more fit. Labs and technology used.</td>
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<td>Hands-on!</td>
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<td>2:00-3:50</td>
<td>105</td>
<td>Dakota F</td>
<td>7-12</td>
<td>Burning Issues</td>
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<tr>
<td></td>
<td></td>
<td>Dianne Miller</td>
<td>SD Project Learning Tree Inc.</td>
<td>Attend this session and you will receive a</td>
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<td>DVD called Burning Issues offering over 14</td>
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<td>hours of interactive media for teaching</td>
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<td>about ecosystems and fire ecology. Five</td>
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<td>&quot;Ecoventures&quot; include forest, prairie,</td>
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<td>urban and wildlife habitats. This DVD</td>
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<td>includes a photo glossary of mammals,</td>
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<td>plants, reptiles and more.</td>
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<td>3:00-3:50</td>
<td>106</td>
<td>Dakota B</td>
<td>7-12</td>
<td>Reading in the Math Classroom</td>
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<tr>
<td></td>
<td></td>
<td>Jean Gomer</td>
<td>Deubrook Area Schools</td>
<td>It is time to &quot;teach&quot; reading instead of</td>
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<td>assign it in the math classroom. Several</td>
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<td>strategies for improving student</td>
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<td>comprehension of reading material will be</td>
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<td>3:00-3:50</td>
<td>107</td>
<td>Dakota D</td>
<td>7-12</td>
<td>Circuit Boards--Constructing Inexpensive</td>
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<tr>
<td></td>
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<td>Molly TenBroek</td>
<td>McIntosh HS</td>
<td>But Durable Circuit Boards</td>
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<td>The standards demand that we teach all</td>
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<td>students the basics of electricity. This</td>
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<td>presentation will show teachers how to</td>
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<td>build an inexpensive but very complete</td>
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<td>and durable circuit board for teaching</td>
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<td>the concepts of series and parallel</td>
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<td>circuits and Ohm's Law. I have used these</td>
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<td>with 7-12 graders</td>
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</tbody>
</table>
Saturday 3:00 pm

3:00-3:50 Session: 108
Dakota E Feb. 3, 2007
Repeat of #5
Grade Level: K-2

Speaker(s): Marcy Farrand
Wilson Elementary-Rapid City

Title: Quickly and Easily Assess a Child’s Working Number

This session will present a quick and easy way to find out where a primary child is while working with basic facts. Activities with little prep time or materials will be shown that help improve this newly found working number.

3:00-3:50 Session: 109
Dakota G Feb. 3, 2007
Grade Level: 6-12

Speaker(s): Ramona Lundberg
Deuel HS, Clear Lake

Title: Exploration of American Physiological Society’s Website

This session will provide an overview of the teacher-developed and teacher-friendly resources provided by the American Physiological Society. Special emphasis will be on the Web-based/hands-on Taste and Hearing units. Freebies provided.

4:15-- Session: 110
Board Room Feb. 3, 2007
Speaker(s): Joint Conference Board

Title: Joint Board Meeting