

May 2011 Vol. 121

## *Science Teachers' Association* Greetings Friends & Colleagues

Here it is, April 24 and we had a snow day last Friday and another one this Wednesday. That is kind of crazy but Mother Nature does as she pleases. I continue to be thankful for the moisture and know that when it finally warms up, SD will be beautiful.

My school sent me to the National Science Teachers Conference in San Francisco this year. I haven't been to a national conference in probably 15 years. Wow, was it awesome. I learned so many cool things. Every session was wonderful. The only problem was that most of the time, I had 3 or 4 sessions I wanted to attend so had to choose one. As funds get tighter, I am sure that schools will cut down on the professional development for teachers but I surely hope you all get the opportunity to go to the national conference soon. I will share some of the cool things I learned.

I have always heated up some iodine crystals to demonstrate sublimation but never knew that one could demonstrate deposition (going from a gas to a solid) at the same time. Put a few iodine crystals in a beaker and apply heat with a hot plate. Put a watch glass on top of the beaker and fill it with ice cubes. First you will see the pretty purple vapor (sublimation) and then later, you will see beautiful purple crystals depositing on the bottom of the watch glass. Awesome.

Rice University out of Houston has developed a wonderful site that contains many medical web quests. It is geared toward middle school and is free. In 1995, Rice University established the Center for Technology in Teaching and Learning (CTTL) to address the ways in which information technology could expand and enrich education. Go to <http://webadventures.rice.edu>. You can find interactive sites involving medical careers, CSI and Medical Mysteries. The web quests are user friendly, relate to real life and are great learning

opportunities. Try them. Your students will love them and they compliment a life science curriculum.

To allow students to experience the force of atmospheric pressure, get a large strong garbage bag. Have a student sit in the bag with his/her legs crossed, keeping their head out of the bag. Have the student hold a vacuum cleaner hose near their body making sure the garbage bag doesn't get pulled into the hose. Hold the bag tight around the student and turn on the vacuum cleaner. The students will be amazed at the strength of the force they experience. Elementary children love this as do older children.

Don't forget about our summer meeting which is scheduled for Monday, August 29<sup>th</sup>, 5-7 CT via the DDN network. The DDN sites I requested last time were Clear Lake, Brookings, Spearfish, Groton, Rapid City Central, Mitchell and McIntosh. I can add other sites if they are available. If you would like to participate in our discussion and would attend at a different site, email me and I will request your site along with the regular ones.

Next year in Huron we will be having a poster board table again. This will allow teachers/students to showcase their work via a poster board display. If you are doing something neat that you would like to share with your colleagues, take pictures and mount them on a poster board and bring it along to the conference in February.

Here's wishing you all a very Happy Easter. Enjoy the rest of the school year and plan to attend one of the many wonderful professional opportunities SD provides for us during the summer. We are fortunate to have so many choices to grow professionally right here in our own state. Take advantage of them while funding is still available.

Molly TenBroek - President, SDSTA  
February 2010 - February 2012

## Regional Science Fairs - 2011

The SD Science Teacher's Association is honoring the junior division winner at two of the five South Dakota Regional Science Fairs.

(As of this writing, abstracts have only been received from these two. If the remaining three are received, they will appear in the October Newsletter.) The best junior division project (as selected by their judges) receive a monetary award of \$30 and a certificate at their science fair. Their abstracts are printed below.

### *Northern SD Science & Mathematics Fair*

**Project:** *Friction of Shoes* by MacKenzie Heilman at Frederick Area School District

**Problem**—Do different brands of sports shoes have friction values?

**Hypothesis**—If different brands of shoes have different friction values, I think Nike would have more friction.

**Procedure**—

- 1) Place the Logger Pro and attach the Force Sensor on a hard surface.
- 2) Take a shoe and tie your laces in a loop at the front of the shoe, so the Force Sensor can pull the shoe to measure the different friction values.
- 3) As the Force Sensor pulls on the shoelace, it will measure the friction of the shoe. A screen on the Force Sensor will show the friction value a shoe has. The higher the number; the more friction a shoe has.
- 4) Using the data from each shoe's friction, I would chart the information on a bar graph.
- 5) I would repeat the steps using different brands of shoes.
- 6) After going through all the steps, I would repeat the rounds to collect more data to make sure it is accurate.

**Bibliography**—

1. The Book Middle School-Science with Vernier by Donald L. Volz and Sandy Spartka
2. Shoe Brands can be helpful
3. Books can be very good information.
4. Internet and knowing about friction can be very useful



### *South Central SD Regional Science Fair*

**Project:** *Going Green As You Clean* by Hannah Wold at Armour Middle School

**Problem**—In my project, “*Going Green As You Clean*”. I was trying to prove that “green” cleaning agents are indeed harmless when compared to their possibly toxic traditional/original versions. I wanted to find out through testing, that “green” cleaning agents are indeed harmless versus traditional, possibly toxic cleaners.

**Hypothesis**—My hypothesis is that “green” detergents will be less harmful than traditional detergents.

**Procedure**—

In a controlled habitat, I subjected red worms (*eisenia foetida*) to a dilution series of detergent and water. I tested four commercially available detergents; two traditional and two “green” versions. After five days, I uncovered the cups of the different experiments I ran and poured each one out into a bucket and took notes on how many worms were alive or dead.

The cups with the higher percentages of detergent in them had all or most of their worms dying and molding on the top of the dirt in the cups. Also, I noticed that basically the same amount of worms died in the traditional detergent tests as in the “green” detergent experiments when increased levels of detergent were added.

I was proven wrong by my experiments because I had hypothesized that a “green” detergent would be less harmful than traditional. Commonly used detergents labeled “green” may not be meeting our expectations of being environmentally safe.

## Freebies for Teachers

### Why Chemistry Matters Videos

To celebrate the International Year of Chemistry 2011, Nobel Media has produced a series of four eight-minute videos in which 16 Nobel Laureates share their opinions on why chemistry is important. The scientists discuss the frontiers of the field, the day-to-day life of a working chemist, the beauty inherent in the “queen of the sciences,” and the thrilling yet sometimes lonely moments that accompany discoveries. Watch the

### TurfMutt Environmental Education Resources

TurfMutt offers standards-aligned science lesson plans for students in grades 3–5, as well as educational videos, activities, and puzzles that encourage environmental stewardship. Students can sign up to receive an environmental newsletter, participate in ecofriendly projects and contests for schools, and learn about U.S. ecosystems on an interactive map. Links to other conservation organizations are included.

<http://turfmutt.discoveryeducation.com/homepage.cfm>



videos here.

[http://nobelprize.org/nobel\\_prizes/chemistry/chemistry\\_matters.html](http://nobelprize.org/nobel_prizes/chemistry/chemistry_matters.html)

### Righteous Reptiles Lesson

Students in grades 2–4 explore the difference between lizards and snakes through this video-enhanced lesson based on the Public Broadcasting Service’s (PBS) series NATURE. The lesson addresses strategies snakes and lizards have developed as adaptations for protection from predat-

tors. As a culminating activity, students complete the “Righteous Reptiles Summary Sheet” by describing in words and artwork one of the animals they learned about in the lesson.

<http://www.pbs.org/wnet/nature/lessons/righteous-reptiles/lesson-overview/4681/>



### Germ Prevention Resources

Access resources and activities to extend hygiene messages and prevent the spread of germs in the classroom. Lessons are available for students in grades K–2 and 3–5 and include such titles as The Case of Invisible Invaders, Follow Those Germs, Removing the Evidence, and Science Fair Investigation. Stop That Germ! is a take-home activity to share with families to help prevent the spread of germs at home.

[www.clorox.com/classrooms/](http://www.clorox.com/classrooms/)

### Findings Magazine

NIH’s online magazine [Findings](http://publications.nigms.nih.gov/findings/) profiles scientists involved in cutting-edge research targeted at improving health. High school and college teachers can share the magazine with students to introduce potential careers in the medical sciences.

<http://publications.nigms.nih.gov/findings/>

### Gateway to 21st-Century Skills Website

This website puts a collection of more than 50,000 educational materials—including lesson plans, units, and activities—at your fingertips. Sponsored by the National Education Association, the standards-based materials can be searched by keyword, grade level, and resource type. The blog called Joann’s Weekly Picks highlights resources on a single topic, such as fractals, each week. Users can also join the 21st-Century Teaching Community to comment on the resources.

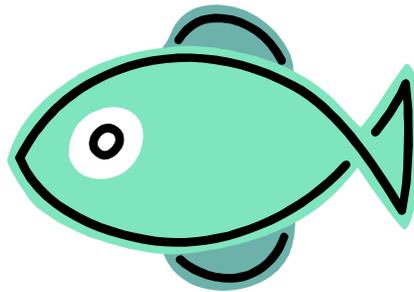
<http://www.thegateway.org/>

## More Freebies for Science Teachers

### Neighborhood Explorers Game

This interactive, animated website for ages 8–11 encourages students to take an interest in their backyards. Students earn patches and learn about nature and wildlife as they complete games in the Neighborhood Explorers (NX) clubhouse. In addition, explorers earn patches for observing nature in person. For example, NX Reporter encourages students to record which bugs, birds, and other animals they observe in their backyards, then report their results online. NX Projects offers conservation activities students can do at home.

<http://www.fws.gov/neighborhoodexplorers/>



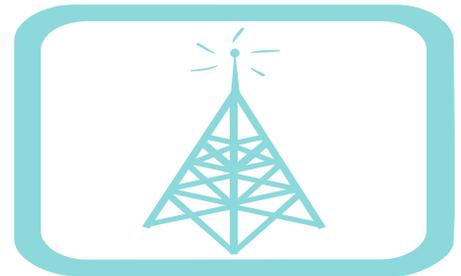
### Fish Kids

Interactive games at EPA’s Fish Kids website teach K–5 students about which fish are safe to eat. Students choose from three adventures (camping trip, grocery store, or sport fishing trip), each ending with an interactive game summarizing what was learned. The site also includes information for adults, such as a “What You Need to Know About Mercury in Fish and Shellfish” fact sheet and an interactive map that teaches about the fish in your area.

<http://www.epa.gov/waterscience/fish/kids/>

### The Marshmallow Challenge

In this seven-minute video, business innovator and software engineer Tom Wujec shares some surprisingly deep insights from the “marshmallow challenge,” a simple team-building exercise involving dry spaghetti, one yard of tape, and a marshmallow. Who builds the tallest tower with these ingredients? Why does a surprising group (kindergarten students) always beat the average? Listen

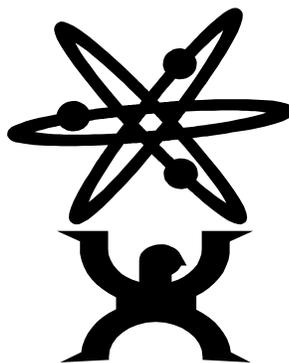


and learn about the nature of collaboration and teamwork here, then try it with your colleagues or students!

[http://www.ted.com/talks/tom\\_wujec\\_build\\_a\\_tower.html](http://www.ted.com/talks/tom_wujec_build_a_tower.html)

## Physics On-Line Tutorial

In this online physics tutorial for high school students, 14 topics are addressed, including kinematics, Newton’s laws, vectors, electricity, momentum, thermal physics, work energy and power, refraction, and reflection. Click on any lesson in a topic to access back-



ground information and real-world applications of the principles discussed.

Most pages include graphics, animations, and assessment opportunities to check students’ understanding.

<http://www.physicsclassroom.com/>

## Biological Molecules On-Line Lab

<http://www.occc.edu/biologylabs/Documents/Organic%20Compounds/Organic%20Compounds.htm>

I would much rather have students perform the actual labs for testing for the presence of biological molecules but I use this one when a student misses class and needs to make up the lab.

Perform the standard tests then do the foods.

Fill out the following information:

Molecule	Reagent added	Positive test	Negative test
Carbohydrates – sugar			
Carbohydrates – starch			
Protein			
Lipid			

Unknown Foods:

Food	Carbohydrate— simple sugar	Carbohydrate— starch	Protein	Lipids
Potatoes				
OJ				
Almonds				
Eggs				
Salmon				
Milk				

## On-Line Enzyme lab

Enzyme simulation where parameters such as enzyme concentration, substrate concentration, pH, and inhibitors can be “added”. Products are shown and can be quantified.

<http://www.kscience.co.uk/animations/model.swf>

Part I: Baseline data – set the program for 2 enzymes and 20 substrates. Leave the other parameters as originally set. Run the program for 1 minute and record the products in the last column.

Part II: Omit

Part III: enzyme localization – make the container smaller and run the program for 1 minute

Part IV: Inhibitors – (Re-set to 2 enzymes and 20 substrates with the original container size) try two different amounts of inhibitors and run for 1 minute each. Record the products formed.

Part V: Co-Enzyme – Replace with manipulating just the pH. Make sure you reset to 2 enzymes and 20 substrates with the original container size. Test at a pH of 1 and a pH of 10.

Part VI: Concentration – try the program with 5 enzymes then 10 enzymes. Change the data table to show how many enzymes and then how many products were formed at 60 seconds.



*What is the difference  
between a catalyst  
and catalase?*

## Web Resources/Things to Do

**History of Science Resources on the Web**— Teaching the history of science is extremely important. Here are some resources that would be very helpful.

[http://www.is.wayne.edu/mrichmon/hist\\_sci.htm](http://www.is.wayne.edu/mrichmon/hist_sci.htm)

### EPA—"Wastes"

<http://www.epa.gov/epawaste/education/index.htm>

This site provides a wealth of materials for teachers, kids, students, and researchers to develop an increased knowledge of solid waste issues. These resources are intended to increase environmental awareness and inspire participation in environmental activities.

Students of all ages will find fun activities and project ideas to learn more about waste reduction, reuse, and recycling. This site also provides information sources, tools, and data to enable student researchers to collect environmental information for use in projects and reports.

Teachers will find curriculum, activities, games, and other educational materials to teach students about waste generation and management. Student award and grant information is also provided, as well as information about environmental careers.



RCRA (Resource Conservation and Recovery Act) Training at your Desktop provides both introductory and more advanced courses for federal and state regulators, the regulated community, organizations, associations, and even consumers who are interested in environmental laws and regulations and their implementation.

### Essential Analogies in Anatomy and Physiology

<http://faculty.hacc.edu/rbsundrud/prof/analogy.htm>

Teachers know that learning proceeds from the known to the unknown. Gentner defines analogies as partial similarities between different situations that support further inferences (Gentner, 1998, p.107). Analogies help a student learn abstract material by relating it to his or her known experiences.

A poor analogy takes up valuable time and can be misleading. On the other hand, some analogies are so useful that we call them *essential* analogies. Here is a topical listing of the better analogies we have used, some of which we consider essential. You are invited to contribute additional analogies, which we will steal and use shamelessly. Email us with your analogies at [rbsundru@hacc.edu](mailto:rbsundru@hacc.edu) or [Kris.Hueftle@fdtc.edu](mailto:Kris.Hueftle@fdtc.edu). This list of analogies will be maintained and updated on Professor Sundrud's website for future reference.

### Access Excellence

<http://www.accessexcellence.org> Access Excellence is a national educational program that provides high school biology teachers access to their colleagues, scientists, and critical sources of new scientific information via the Information Highway. Access Excellence has accumulated some excellent sites for biology teachers.

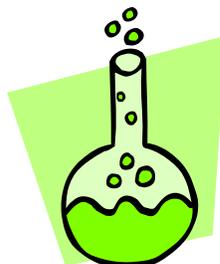


### ChemEd 2011—July 24-28

<http://www.wmich.edu/chemed/>

If you teach chemistry or physical science, you will want to try to make plans to attend this conference. I attended about 12 years ago and still use many of the activities I brought back with me.

Bringing chemistry educators from around the world to enrich, motivate and energize for the coming academic year. Western Michigan University is proud to host ChemEd 2011, a conference where chemistry educators share their teaching experiences, classroom innovations, and laboratory experiments. It's a place to learn valuable insights from a few outstanding educators, and a place where participants engage in hands-on workshops and view chemical demonstrations.



The ChemEd 2011 planning committee invites you to attend and participate as an attendee, a speaker, a vendor, or a family member, and learn how Michigan Makes Chemistry Grow professionally.

**Using the original track they give you:**

Student Name \_\_\_\_\_

Adjust the speed of the roller coaster "car". What is the slowest speed you can set it at and still complete the course? \_\_\_\_\_

What is the fastest speed you can set it at and still complete the course? \_\_\_\_\_

If the speed of the coaster is too high when it goes over the crest of a hill, what happens? Why?



What happens when you move the gravity all the way down? \_\_\_\_\_

What happens when you move the gravity all the way up? \_\_\_\_\_

How does a change in gravity setting affect the motion of the coaster as it goes up and down hills and around the loop? \_\_\_\_\_

What happens when you move friction all the way down? \_\_\_\_\_

What happens when you move friction all the way up? \_\_\_\_\_

What happens when you move mass all the way down? \_\_\_\_\_

What happens when you move mass all the way up? \_\_\_\_\_

Adjust the height of the initial hill. Is the hill height high enough to provide enough potential energy for the Coaster to make its way over the Hill #2 and through the loop? \_\_\_\_\_

Adjust the height of the second hill. Why does the height of the second hill affect the ability of the coaster to go safely around the loop? \_\_\_\_\_

What settings for the heights of the first and second hill cause the coaster to either not get around the loop or crash through the loop? \_\_\_\_\_

Adjust the loop, making it bigger. How did that affect your coaster? \_\_\_\_\_



Now design your own track and set the variables so that your coaster works safely. Sketch 3 of your designs and note your settings for speed, gravity, mass and friction on the back of this sheet.

# Cosmic Math 2011

June 27 through July 1

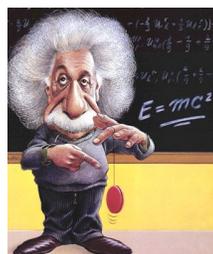
Anyone wishing to register should go to <http://CosmicMath2011.questionpro.com> and fill out the forms. Notification of acceptance should be no later than May 25. Although a team of teachers in math and science in middle and/or high school is encouraged, it is not required. Meal and housing are provided as is a stipend. More details are contained in the following abstract.

The project, Cosmic Math 2011, is designed to use astronomy as a means of motivating students to learn geometry, algebra, trigonometry, earth and physical science concepts. During the week-long summer institute, vertical teams of teachers will develop skills with Cognitively Guided Instruction (CGI) classroom techniques which are at the core of SD Counts. Teachers will be involved in inquiry-based activities focused on building models (space and shape concepts), collecting and analyzing data (manipulation of quantities) and sharing lesson plans for implementation. Vertical teams will consist of physical science and mathematics teachers at both the Middle and High School level. Consultants from high school and middle school will ensure that the material provided is appropriate for the various grade levels of the vertical team. Teachers will develop unit plans that emphasize the connections between science and math in each class and at different grade levels. Up to 3 hours of graduate credit is available in math or physics.

For additional information, contact Larry Browning, Physics Department S D S U

Voice(605)688-4548  
FAX(605)688-5878

Larry.Browning@SDSTATE.EDU  
[CosmicMath2011.questionpro.com](http://CosmicMath2011.questionpro.com)



## Chemistry Teachers Needed!

Indiana University has been awarded a federal education grant to study the effectiveness of an online learning tool for chemistry called CALM (Computer Assisted Learning Method). CALM was developed in 1996 by the Department of Chemistry at Indiana University, Bloomington and is primarily used by chemistry teachers in the form of an online homework system that allows the assessment and tracking of student performance to chemistry questions. CALM has been and will continue to be a free service for teachers and students.

We are in the process of recruiting teachers into the third year of a three year randomized control study and we are hoping you would consider sharing this information with the members of the South Dakota Science Teachers Association. We are looking for approximately 70 teachers who have not used CALM in the past and are teaching at least one general chemistry course in the fall of 2011.

Participating teachers will receive a \$150 stipend. Also, because all teachers participating in the CALM study (those assigned to both treatment and control groups) will receive training during a CALM workshop on IU's campus, teachers may be eligible to count the workshop time as up to 12-15 hours of professional development. The workshop aligns with most states' professional development standards as it addresses the integration and utilization of technology inside and outside of the classroom, furthers content knowledge, helps to plan instruction that is appropriate for students at all levels, and facilitates the development of alternative teaching methods for differentiated instruction.

Please contact me for additional information on CALM and the research study.

Rebekah Sinderson, Project Associate – CALM Project  
Center for Evaluation & Education Policy

Indiana University  
1900 East Tenth Street  
Bloomington, IN 47406-7512

Phone: 812.856.4586

Fax: 812.856.5890

[rsinders@indiana.edu](mailto:rsinders@indiana.edu)

<http://calm.indiana.edu>

**Calm** : Computer Assisted Learning Method  
A Free Web-Based Learning Tool

SDSTA Meeting—Feb. 4, 2011—Huron, SD

Meeting called to order at 4:00 p.m.

Secretary's minutes were read and approved.

Treasurer's report was read and approved.

Old Business:

Molly invited all members to consider submitting articles for the newsletter. Also, any professional development opportunities can be submitted to James to be published in the newsletter and on the web.

Possible summer opportunities:

Particle Physics-July 10-16

AAPT meeting-July 30-Aug 3

Conference Location

If anyone has ideas about a new location for the conference, they should contact Jean Gomer who has a list of what we need for an effective conference. Unless they can provide the same services that the Crossroads provides, we can't afford to move the conference.

The time of year for the conference was discussed. No time will work for everyone but in February, we get better rates at the Crossroads.

Conference Speakers—Anyone with featured speaker ideas should contact the President. We are always looking for good featured speakers.

The fall business meeting will be held on August 29 via the DDN from 5-7 CT. If you are interested in participating, let Molly know what location you need added to the meeting site list.

Molly suggested teachers clean out their old chemicals for safety reasons. She has some names and numbers to call. It is best to get several schools in one area to tackle this problem so the waste disposal companies can do several schools at once. Mileage is a big expense. Julie said some schools get grants for this.

James has an electronic conference survey up and running. We will see how it works this year. Remember that one evaluation is drawn each year for a free conference pass for the following year.

James has lab coats for sale for \$20. Also some t-shirts for \$15.

Micheline suggested we do a better job of advertising the poster session so we get more participants. We will try to do a better job of this next year.

New Business: Molly mentioned that the Targeted release date for the Framework to guide the next generation of science education standards is set for the spring of 2011. The National Research Council is in charge of this. They expect the standards to be released in 2012.

Sam Shaw spoke on things that he is working on for South Dakota. Some things include working on aligning new science classes with the standards so they can be including as one of the 3 required science classes for graduation. He also facilitates the National Youth Science Camp and is working on a teacher to teacher support network.

Much discussion was held on National vs. State standards. Some teachers feel national standards are the way to go while others feel SD needs our own standards.

SD budget cuts were discussed. Julie Olson recommends that one never use school email for political discussions. If you want your mail read, either use your home email account or write a personal note. Do not copy and paste. \*\*\* Minutes continued top of Page Eleven \*\*\*

Keeping students motivated is difficult at the end of the year. This is tough because I also want to start summer vacation! I have found that by throwing a bit of competition and allowing the students to apply what they have learned all year, really gives the students, and me included, the spark needed to make it through the last few weeks. The unit is called Survivor Science, based off the hit TV show *Survivor*. I got the idea from ScienceSpot.net, they actually have an outline of the program on their website (<http://sciencespot.net/Pages/survivorsci.html>) which I took and modified to something I could use with my students. My fellow teachers and I created a 7<sup>th</sup> grade competition. Each of our classes would compete in teams to earn points. At the end of the week, the team with the most points wins a prize package (candy, movie tickets, etc)! We put together challenges based off of the examples and made a few challenges of our own. It was exciting to see how kids were determined to get the most points possible. The team accountability was impressive, EVERYONE was working & wanted to win.



## Cosmic Recount

Dr. Tony Phillips

News flash: The Census Bureau has found a way to save time and money. Just count the biggest people. For every NBA star like Shaquille O’Neal or Yao Ming, there are about a million ordinary citizens far below the rim. So count the Shaqs, multiply by a million, and the census is done.

Could the Bureau really get away with a scheme like that? Not likely. Yet this is just what astronomers have been doing for decades.

Astronomers are census-takers, too. They often have to estimate the number and type of stars in a distant galaxy. The problem is, when you look into the distant reaches of the cosmos, the only stars you can see are the biggest and brightest. There’s no alternative. To figure out the total population, you count the supermassive Shaqs and multiply by some correction factor to estimate the number of little guys.

The correction factor astronomers use comes from a function called the “IMF”—short for “initial mass function.” The initial mass function tells us the relative number of stars of different masses. For example, for every 20-solar-mass giant born in an interstellar cloud, there ought to be about 100 ordinary sun-like stars. This kind of ratio allows astronomers to conduct a census of all stars even when they

can see only the behemoths.

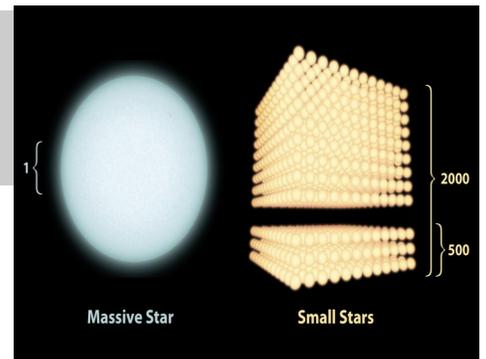
Now for the *real* news flash: The initial mass function astronomers have been using for years might be wrong.

NASA’s Galaxy Evolution Explorer, an ultraviolet space telescope dedicated to the study of galaxies, has found proof that small stars are more numerous than previously believed.

“Some of the standard assumptions that we’ve had—that the brightest stars tell you about the whole population—don’t seem to work, at least not in a constant way,” says Gerhardt R. Meurer who led the study as a research scientist at Johns Hopkins University, Baltimore, Md. (Meurer is now at the University of Western Australia.)

Meurer says that the discrepancy could be as high as a factor of four. In other words, the total mass of small stars in some galaxies could be four times greater than astronomers thought. Take that, Shaq!

The study relied on data from Galaxy Evolution Explorer to sense UV radiation from the smaller stars in distant galaxies, and data from telescopes at the Cerro Tololo Inter-American Observatory to sense the “H-alpha” (red light) signature of larger stars. Results apply mainly to galaxies where stars are newly forming, cautions Meurer.



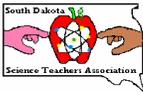
*Astronomers have recently found that some galaxies have as many as 2000 small stars for every 1 massive star. They used to think all galaxies had only about 500 small stars for every 1 massive star.*

“I think this is one of the more important results to come out of the Galaxy Evolution Explorer mission,” he says. Indeed, astronomers might never count stars the same way again.

Find out about some of the other important discoveries of the Galaxy Evolution Explorer at <http://www.galex.caltech.edu/>. For an easy-to-understand answer for kids to “How many solar systems are in our galaxy?” go to The Space Place at: <http://tiny.cc/I2KMa>



*This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.*



# SDSTA Officers

**President: Molly TenBroek**  
9170 Hwy 31  
McIntosh, SD 57641  
McIntosh High School  
Molly.Tenbroek@k12.sd.us

**President-Elect: Brenda Murphey**  
12821 Robinson Rd  
Black Hawk, SD 57718  
R. C. High School  
Brenda.Murphey@k12.sd.us

**Past-President: Ramona Lundberg**  
103 9th Ave South  
Clear Lake, SD 57226  
Duel High School  
Ramona.Lundberg@k12.sd.us

**Secretary:**

**Treasurer: James Stearns  
and Newsletter Co-Editor**  
15 North Fifth Street  
Groton, SD 57445  
James.Stearns@k12.sd.us

**Conf. Hospitality: Marcy Farrand**  
**Conf. Vendor Contact: Mark Farrand**  
4009 Brookside Dr.  
Rapid City, SD 57702  
R. C. School District  
Marcy.Farrand@k12.sd.us  
Mark.Farrand@k12.sd.us

**Elem Liaison: Micheline Hickenbotham**  
19650 Mossing Lane  
Spearfish, SD 57783  
B H S U  
Micheline.Hickenbotham@bhsu.edu

**Middle School Liaison: Nicole Keegan**  
3701 Parkview Dr.  
Rapid City, SD 57701  
Dakota Middle School  
Nicloe.Keegan@k12.sd.us

**High School Liaison: Julie Olson  
and Newsletter Co-Editor**  
600 West Third  
Mitchell, SD 57301  
Mitchell High School  
Julie.Olson@k12.sd.us

**College Advisor: Larry Browning**  
2061 First St.  
Brookings, SD 57006  
S D S U  
Larry.Browning@sdstate.edu

\*\*\*Minutes continued from Page Nine\*\*\*

Ramona spoke about her duties as District NSTA representative. She said the main issues haven't changed—those being NCLB and funding. She will be attending the ND and MN conferences.

Molly needs to make sure all members know that they are invited to this meeting. This will be clarified in the conference booklet next year.

The SDSTA Newsletter is published four times a year. The May issue (this one) is mailed to 160 paid members, and several to other science organizations.

The Membership year in SDSTA starts with the February conference and ends the first of February. Dues are due at each conference for member discount rates.

SDSTA members may give a one year free membership to their student teachers by submitting the student teacher's name & address.

One free conference registration is given away to the SDSTA member that has made a submission to the newsletter (or given a presentation at the conference) and has referred at least three new members.

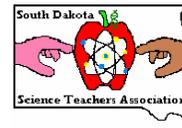
Members may also earn a 10% finders fee for any science related ads placed in the newsletter. Our rates are \$100 per page (or 3 to 4 quarter pages) or insert per issue or \$300 per page to place an ad in four consecutive issues.

Meeting adjourned at 5:35 p.m.  
Bobbie Traxinger—  
SDSTA secretary  
Typed by Molly TenBroek

## \$12,000

Have you ever heard of [www.eCybermission.com](http://www.eCybermission.com) ? If you're looking for a way to take your science fair to a new level, have your students enter their projects into cyberspace. I've successfully coached 4-four student Groton teams as they worked on their cyberspace science projects. Eight \$1000 Savings Bonds and eight \$500 bonds were awarded to eighth & ninth graders in my science classes. Login to the website for additional details.

Mail to: James Stearns, SDSTA Treas  
15 North Fifth Street  
Groton, SD 57445



\$ 5 Student  
\$ 5 K - 6  
\$ 5 Retired  
\$ 20 All Others

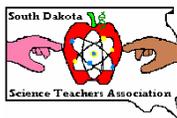
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Your School \_\_\_\_\_ School Phone \_\_\_\_-\_\_\_\_\_  
School Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_ Zip \_\_\_\_\_  
Your area K - 6 7 - 8 9 - 12 College Other \_\_\_\_\_  
( circle one )

Referred by \_\_\_\_\_

# South Dakota Science Teachers' Association

Julie Olson and James Stearns  
Editors, S D S T A Newsletter  
15 North Fifth Street  
Groton, SD 57445-2024



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Way to celebrate Einstein's Birthday !!



## Calendar of Events      Calendar of Events

- April 22      Earth Day - Check out Educator Trainings at [www.wetland.org](http://www.wetland.org)
- April 29      Wind for Schools      [www.sdwind.org](http://www.sdwind.org)      [wind@pie.midco.net](mailto:wind@pie.midco.net)
- May 2      Deadline for Application to PAEMST - [www.paemst.org](http://www.paemst.org)
- June 6-8      Using TI-Nspire in the Classroom in SF - [www.tinspire2011.com](http://www.tinspire2011.com)
- June 9-11      Teach to Learn - Sioux Falls - [sanfordoutreach@sanfordhealth.org](mailto:sanfordoutreach@sanfordhealth.org)
- June 20-30      9-12 Physical Science Modeling workshop at BHSU - [andyjohnson@bhsu.edu](mailto:andyjohnson@bhsu.edu)
- June 27 - July 1      Cosmic Math 2011 at SDSU - <http://CosmicMath2011.questionpro.com>
- June 30-July 24      National Youth Science Camp - [www.nysc.org/w/2011.html](http://www.nysc.org/w/2011.html)
- July 10-16      EinsteinPlus 2011 workshop - Perimeter Institute - [www.einsteinplus.ca](http://www.einsteinplus.ca)
- July 11-16      Dinosaur Science — Dinosaur Collecting Expedition in South Dakota
- July 12-16      National Congress on Science Education - Baltimore, Maryland
- July 24-28      ChemEd 2011 - <http://www.wmich.edu/chemed/>
- August 29      **SDSTA Summer meeting** via DDN (Contact any officer to attend at their site)
- Oct. 27 - 29      NSTA Area Conference—Hartford, Connecticut
- Dec. 8 - 10      NSTA Area Conference—Seattle, Washington

February 2—4, 2012      20<sup>th</sup> Annual Joint Math & Science Conference - Huron, SD

Homepage Located At      <http://www.sdsta.org>