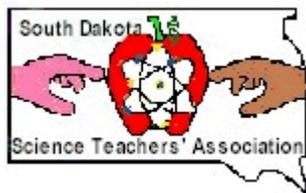


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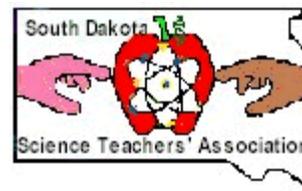
# South Dakota Science Teachers' Association



## Winter 2014-15

January 2015

Volume 135



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### President's Letter—Julie Olson

Hoping this letter finds everyone refreshed from the Christmas vacation having had time to spend with family and friends. It is great to see my children continue the tradition of inviting friends over who cannot make it home for Christmas. They fit right in with the rest of the crazy clan playing games and even taking part in the infamous white elephant gifts! I got to show my geek side when I brought out the quadricopters to fly around. I have to say that I am not very good at maneuvering them. One requires a new Android or iPhone, which I do not have but my students thoroughly enjoy navigating around the room. They were definitely a hit with the technophiles in the family young and old. I am looking for curriculum and lesson ideas for their use in the classroom so if anyone has some, send them my way.

The executive boards for SDSTA and SDCTM met in

November and December to organize and finalize the program for the joint conference in February. There is a terrific line-up with something for everyone. As always, it is a great time to get with friends/colleagues to share ideas and just re-charge our batteries. I always come away with so much awe for dedication and work ethic of those I talk to as well as meeting the new and soon-to-be teachers.

Let me take this space to also ask everyone that has looked at the NGSS and South Dakota Science Standards to talk to their representatives about the standards (South Dakota). By the time you get this newsletter, the meeting to be held in Pierre will have already taken place but we can still engage in meaningful conversations.

This semester will find me taking more classes for my Ed. D in curriculum and instruction. It is to fulfill one of my personal goals – to get a doc-

torate. I am learning so much from my classes – many things that I wish I had known when I started teaching. It is also great to get to engage in discussions with administrators that are also taking some of the courses. The different perspectives are definitely an asset. This semester will also find my going to Chicago for the NSTA convention and to present with other NGSS writers on implementation. I will be on the look-out for presenters for our own convention for the following year as well as more ideas to share. I am so glad our profession is one of true collaboration. Where would we be if we didn't share – hence one of the reasons for our state conference.

Have a great school year.

Sincerely,

*Julie Olson*

SDSTA President 2014-2016

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## Professional Development Opportunities:

You should have received the brown joint professional development brochure that was mailed by the Science and Math teachers last week. It highlights some of the sessions that will take place at the February 5-6-7 conference in Huron. We encourage you to mail in your Advance Registration. If you feel the time is too short for it to be processed, then fill it out and

bring it along to the conference and Steve will get it processed on site.

If you're looking for more information about the conference, just go to our website. The Conference Booklet can be downloaded and printed—but upon arriving in Huron, you will be given a booklet. It describes the sessions with their presenters, times and rooms.

To find that information, go to [SDSTA.org](http://SDSTA.org) and click the fourth link on the left (it says CONFERENCE). Besides the 23rd Annual Conference Booklet, you'll also find a link to the conference Wiki. If you're a new first year teacher, you will want to use the link at the top of the page—we offer first year teachers a free conference registration. Hope to see you there.

### SIX STAR SCIENCE ONLINE TEACHER (OT) PROFESSIONAL DEVELOPMENT PROGRAM

The Six Star Science OT is a 10-month online professional development program that focuses on the three Dimensions in the Next Generation Science Standards: Scientific Practices; Cross Cutting Concepts (especially “Cause and Effect” and “Structure and

Function”), and Core Ideas (Life Sciences) and on expanding teacher skills in three major areas: 1) Updating Teacher Content and Pedagogy Knowledge; 2) Understanding the Research Process; and 3) Applying Six Star Science in the Classroom. Online Teacher (OT) Fellows participate in a dynamic and interactive virtual learning community that focuses

on exploring effective teaching strategies, understanding the research process, and enhancing classroom materials. Fellows receive a stipend for completion of their online work. **EXTENDED Application deadline: January 31, 2015.** More info on this program can be found at: [www.frontiersinphys.org](http://www.frontiersinphys.org)

## Edcamp South Dakota is BACK!

We are pleased to announce that #SDEDCAMP will be coming this spring to Brookings SD. We had such a blast with the first one that with the help of SDEA, SDSU, and the Brookings School District we are able to offer another great PD event.

Please pass the word about this event and get signed up!

One common statement that was made on the first survey was that you all wished more edu-

cators would have joined us. When something is new people are a little slow to join, but after hosting our first one with so much success we hope to pack the house in Brookings.

We need your help to recruit as many educators from your district to join us! It is going to be another great event and I am so excited to hopefully see familiar as well as new faces in Brookings.

Visit <http://goo.gl/rV3MTx> to get signed up and take a hold of another great learning event on March 28th 2015 in Brookings SD!

## SERF Fellowship -

<http://www.sanfordresearch.org/education/educators/scienceeducatorresearchfellowshipprogram/>

The Science Educator Research Fellowship Program provides middle and high school science teachers with training in health research with a focus on pediatric approaches. Participants conduct independent community-based or biomedical research under the supervision of a Sanford scientist in Sioux Falls, South Dakota. In addition to independent research, Fellows take part in a training program encompassing research methodology, developmental processes, environmental influences of pediatric disease, disease intervention strategies, scientist spotlights, and ethical conduct in research. Fellows also receive inquiry-based instruction for applica-

tion of biomedical research concepts and techniques. At the culmination of the program, Fellows will appreciate and understand health research approaches for meaningful translation into their classroom activities.

Science Educator Research Fellows:

- must be a regional middle or high school science educator
- receive an \$8,000 summer stipend
- from outside the Sioux Falls region are eligible to receive additional funds supporting temporary housing or travel compensation
- are committed to participating in the entire 10-week program (June

3 – August 9, 2015; 40 hours per week with one week of vacation)

- work in the lab of a Sanford scientist and receive \$500 towards their research project
- participate in pediatric research and science education training courses which are eligible for continuing education credits through the University of South Dakota
- receive \$500 to apply their research experience into the classroom
- present their research findings during the Sanford summer symposium
- can participate in the program for up to two years



The National WWII Museum is excited to announce a week-long professional development opportunity to take place in the summer of 2015 for middle school (5-8th grade) science teachers. Twenty eight teachers from across the country will come to New Orleans to experience hands-on how necessity, knowledge, perseverance and skill lead to inventions, innovation, and careers in STEM—just like in World

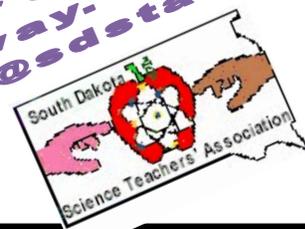
War II.

This seminary is supported by a grant from the Northrop Grumman Foundation. Teachers will receive free room and board in New Orleans, a travel stipend, and all seminar materials free of charge.

We are looking for great young teachers nationwide,

and the application period begins January 5th 2015. Please visit [www.nationalww2museum.org/realworldscience](http://www.nationalww2museum.org/realworldscience) for more information and to sign up for email updates.

*If your address changes,  
please drop us a  
line with your  
new address so  
we can keep your  
newsletter coming  
your way.  
Newsletter@sdsta.org*



## South Dakota Science Olympiad

<http://sites.usd.edu/sdscienceolympiad/>



### SD—AAP Photo Contest

<http://sdaapt.sdsta.org/>

The contest is open to high school students in grades 9-12. **Students must print out, sign, and return the Contest Rules and Entry Agreement, [HTML](#) version or [WORD](#) version, when submitting their entry. Failure to submit this form will invalidate the contest entry.** Entries are limited to 6 per teacher per school each year. If possible, please place all entries from the school in one package.

The deadline for entry is TODAY. If you have students with entries, you need to get that entry in right away. Send an email with attached photo & description to [James@SDSTA.org](mailto:James@SDSTA.org) (and bring original photo to conference for judging.)

## NGSS High School Evidence Statements

<http://www.nextgenscience.org/ngss-high-school-evidence-statements>

The evidence statements provide detail on what students should know and be able to do in order to satisfy each performance expectation (PE) at the end of instruction. Given that each PE is three-dimensional, the statements describe how students can use the practices, crosscutting concepts, and disciplinary core ideas together to demonstrate proficiency on the PEs by the end of instruction.

The evidence statements are intended to identify clear, measurable components that, if met, fully satisfy each PE described within the NGSS. They are not meant to limit or dictate instruction and were written to allow for multiple methods and contexts of assessment, including assessing multiple related PEs together at the same time.

## NSF STEM resources

Between 2011 and 2014, Education Development Center, Inc. (EDC), a non-profit research and development organization in MA, received funding from the National Science Foundation for a series of eight national and regional meetings for educational stakeholders across sectors. This series, which became known as STEM Smart, initially focused on communicating and disseminating the findings of the report, *Successful K-12 STEM Education: Identifying Effective Approaches in Science Technology, Engineering, and Mathematics*, generated through work of the National Research Council (NRC) Board on Science Education and the Board on Testing and Assessment Steering Committee. Postings from these meetings are available at [www.successfulstemeducation.org](http://www.successfulstemeducation.org).

Easy-to-read briefs, bringing together research and practice of interest to educators, policy-makers, funders, and STEM thought leaders, accompanied the meetings. Topics included: connecting informal and formal STEM education; preparing and supporting STEM educators; college and career readiness; specialized STEM secondary schools; increasing STEM achievement; engineering; early education (prek-3); and CTE pathways/middle-skills education.

Evaluations indicated that meeting participants found them clearly written and useful, frequently sharing them with colleagues. We have since disseminated them at other large-group meetings, and received similar feedback.

We have decided to make them available to your networks and associations as well. With attention finally focused on STEM education, these briefs might help you make the case for improvements in STEM teaching and learning. You will find copies of these briefs at [www.successfulstemeducation.org](http://www.successfulstemeducation.org)

# Continue your education as a Coyote!

## University of South Dakota School of Education



### Undergraduate Teaching Majors

- K-8 Elementary Education
- 7-12 Biology, Chemistry, Earth Science, English, History, Mathematics, Physics, Political Science, Speech Communication, Theatre
- K-12 Art, French, German, Music, Physical Education, Spanish, Special Education\*

\*Double Major: The Special Education major must be paired with Elementary Education or a 7-12/K-12 teaching major.

### Undergraduate Non-Teaching Majors

Kinesiology and Sport Science  
(Exercise Science or Sport Management Specialization)

<http://admissions.usd.edu>

### Curriculum and Instruction

M.A. Elementary Education, Technology,  
Secondary Education, Special Education  
Ed.S., Ed.D. Curriculum and Instruction

### Counseling and Psychology in Education

M.A., Ed.S., Ph.D. Human Development and  
Educational Psychology  
M.A., Ed.S., Ph.D. Counseling  
Ed.S., Ph.D. School Psychology

### Educational Administration

M.A., Ed.S., Ed.D. PK-12 Principal, Director of Curriculum,  
School District Superintendent  
Ed.S, Ed.D. Director of Special Education  
M.A., Ed.D. Adult and High Education

### Kinesiology and Sport Science

M.A. Kinesiology and Sport Science  
(Exercise Science or Sport Management Specialization)

[www.usd.edu/grad](http://www.usd.edu/grad)



SCHOOL OF EDUCATION STUDENT SERVICES

414 East Clark Street | Vermillion, SD 57069 | [www.usd.edu/ed](http://www.usd.edu/ed) | 605-677-5612

## 2015 SDCTM/SDSTA JOINT CONFERENCE

Conference information and program booklets will be available online at [www.sdctm.org](http://www.sdctm.org) and [www.sdsta.org](http://www.sdsta.org)

### ADVANCE REGISTRATION

Crossroads Events Center, Huron South Dakota  
 February 5-7, 2015 1-800-876-5858

*Please print clearly. Postmark by January 20, 2015. After this date, please register on-site.*

Name \_\_\_\_\_  
 Permanent Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 School/District \_\_\_\_\_ E-mail \_\_\_\_\_  
 Home phone \_\_\_\_\_ School Phone \_\_\_\_\_

*Please check the appropriate categories for membership, conference registration, and payment.*

### 1. SDCTM/SDSTA MEMBERSHIP(s) and DUES

*Please check the appropriate categories. You may join one, both, or neither organization.*

Begin/renew SDCTM (math) for one year

- Elementary \$5
- Middle School \$20
- High School \$20
- Post-Secondary \$20
- Student \$5
- Retired \$5
- Other \$20

Begin/renew SDSTA (science) for one year

- Elementary \$5
- Middle School \$20
- High School \$20
- Post-Secondary \$20
- Student \$5
- Retired \$5
- Other \$20

### 2. CONFERENCE REGISTRATION

*Please check the appropriate categories. Noon luncheon is included for each day that you register.*

**NOTE: The Friday night banquet is NOT included. Banquet tickets may be purchased for \$25 each.**

I will attend the conference on (check one):  Friday  Saturday  Both days

SDCTM or SDSTA Member

- One day \$50
- Two days \$75

Non-Member

- One day \$100
- Two days \$125

Student Member

- One day \$15
- Two days \$25

College credit will be available; information/registration will be available at the conference registration table.

### 3. PAYMENT

*Make checks payable to SDCTM.  
 Purchase orders will NOT be accepted.*

Membership(s) total \$ \_\_\_\_\_  
 Registration \$ \_\_\_\_\_  
 Friday Night Banquet (\$25 each) \$ \_\_\_\_\_

**TOTAL ENCLOSED \$ \_\_\_\_\_**

*Requests for refunds must be received by January 20, 2015*

### 4. SEND THIS FORM WITH PAYMENT

Steve Caron  
 907 South 16<sup>th</sup> Street School phone (605) 725-8208  
 Aberdeen, SD 57401 Home phone (605) 226-2292

Email: [steve.caron@k12.sd.us](mailto:steve.caron@k12.sd.us)

*Advance registration must be postmarked by January 20, 2015.  
 After this date, please register on-site.*

Please check here if you have also submitted a speaker proposal form for the 2015 Conference.

### “GOEHRING/VEITZ LEADERSHIP SCHOLARSHIP”

“The Goehring/Veitz Leadership Scholarship” has been established to encourage new teachers of math and science to become professionally involved on the state level. The scholarship, which is good for a free one or two day registration at the Joint Conference of the South Dakota Council of Teachers of Mathematics and the South Dakota Science Teachers Association, is available to any teacher who meets each of the following criteria:

- Is a K-12 teacher of math or science who is in the first year of teaching in SD
- Is a member of SDCTM and/or SDSTA. Applicants must pay their own dues to the chosen organization.

The application process is simple. Fill out the form below, have it signed by the building principal, and mail it to Steve Caron along with the regular conference registration form which is available at [www.sdctm.org](http://www.sdctm.org).

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#### APPLICATION

### “GOEHRING/VEITZ LEADERSHIP SCHOLARSHIP”

Name: \_\_\_\_\_

School District: \_\_\_\_\_

Teaching Assignment: \_\_\_\_\_

Membership Information:

\_\_\_\_\_ I am already a member of SDCTM SDSTA (Circle one or both)

\_\_\_\_\_ I am joining SDCTM and/or SDSTA (Circle one or both)

I am enclosing a check for

\_\_\_\_\_ \$5.00 for Elementary Math and/or \$5.00 for Elementary Science

\_\_\_\_\_ \$20.00 for MS/HS Math and/or \$20.00 for MS/HS Science

(Name) \_\_\_\_\_ is in his/her first year of teaching in SD at

\_\_\_\_\_ School District during the \_\_\_\_\_ school

year and is thus eligible for ‘The Goehring/Veitz Leadership Scholarship.’”

Signed: \_\_\_\_\_, Building Principal

# VISIONS OF EXPLORATION



Home About Chapters Lessons STEM Library Projects FAQ CyberPatriot Contact



## USA Today Grants

I am the Director of Education Resources for USA TODAY. I am contacting you because we happen to have several newspaper grant opportunities available for educators in South Dakota and I thought you might be interested in sharing them with your SDSTA colleagues as appropriate:

Thanks to the generosity of the Air Force Association, we currently have no-cost print newspaper grants available in South Dakota. This is our 24th year of partnership with AFA on the Visions of Exploration STEM program ([www.usatodayeducation.com/afa](http://www.usatodayeducation.com/afa)). Visions of Explorations provides educators (4th-12th grade) with resources designed to enhance student understanding of science, technology, engineering and math, as well as aerospace education. In addition, USA TODAY's print newspaper is provided for the classroom 1 day per week for 16 weeks. Registration and participation is available at NO COST. All curriculum materials are available at [www.usatodayeducation.com/afa](http://www.usatodayeducation.com/afa) and educators can register at: <http://usatodayeducation.com/afa/index.php/educator-sign-up-form>

Registration is also now open for grants to the electronic edition of USA TODAY, which will begin in January 2015 and run through the spring semester.

The e-Edition is the exact digital replica of the print edition of the newspaper and is available 5 days per week – again, at NO COST. Educators (elementary, middle and high school) may register here to receive complimentary access to the e-Edition for use in the classroom.

All grants are awarded on a first come, first serve basis.

## Goldenrod Paper Experiments

•Some brands of goldenrod paper work, some do not: Hammermill® and Contact® are two that -- at least at the time of this publication -- do work.

•AstroBright® brand Galaxy Gold®, which has been available at some Kinkos® also works, but it was recently discontinued at the OfficeMax® in Lincoln.

<http://chemmovies.unl.edu/chemistry/beckerdemos/BD022.html>

How to make your own with turmeric as well as study electrolysis of salt water and resulting acidic/basic conditions at each electrode using the goldenrod paper. Students can then “write” their name with the electrodes on the paper. <http://amasci.com/amateur/gold.html>

## Polyzoographic – animal phyla –

A polyzoographic is a “creature” made of many other animal parts. As a way to combine science and art, have students draw a “creature” made of parts from the animal kingdom phyla – you decide how many of the phyla they must represent. They must color it and give it a Genus species name as well as a common name.

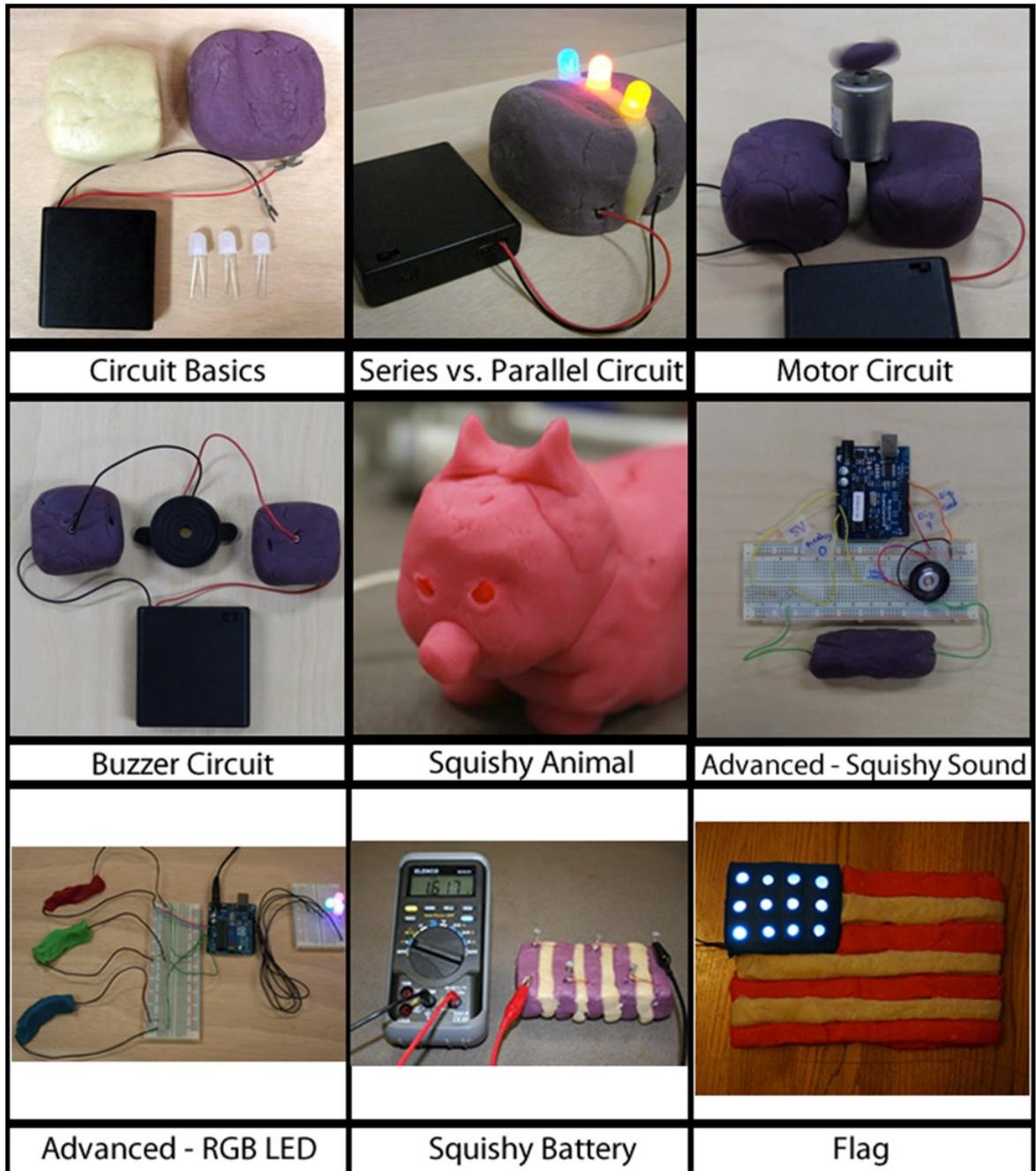
Resources: <https://www.ebiomedia.com/the-animal-phyla.html>

## Squishy Circuits – from the Playful Learning Lab and the University of St. Thomas School of Engineering

<http://courseweb.stthomas.edu/apthomas/SquishyCircuits/>

The goal of the project is to design tools and activities which allow kids of all ages to create circuits and explore electronics using play dough. TED talk describing the project at <http://www.ted.com/talks/view/lang/en/id/1111>

The website offers how to make conductive and non-conductive dough then build circuits. I bought a cheap set of LED Christmas lights then took the LED's out to use. You can also purchase LED's in bulk on the internet. The directions are there for circuit basics: Series, Parallel. Further projects include working with motors, making a squishy animal, LED experiments, making a battery, and advanced squishy sound.



Hatch A Cyst – from the DNAi Learning Center - <http://teach.genetics.utah.edu/content/gsl/html/hatch.html>

What is the optimal environment for hatching brine shrimp? Using a scaffold, students design and conduct experiments testing the effect of a single abiotic factor on brine shrimp cyst hatch rate. Pool results from the class to determine the optimal environment for hatching these resilient organisms.

This activity requires little materials (brine shrimp cysts, Petri dishes, paper towel, non-iodized salt), little area for set-up, and engages students in several of the practices found in the SDSS (proposed) and NGSS.



**Join us for Design Challenge 2015, where teams are challenged to design, build and test solutions to situations they might encounter while being stranded.**

Saturday, March 28, 2015 at the Washington Pavilion

Teams of students in grades PreK, K-2, 3-5, 6-8, and 9-12 can sign up to compete in the 2015 Design Challenge on Saturday, March 28<sup>th</sup>. Some classrooms have participated in these projects on a classroom level – dividing up into groups and addressing the content as a classroom, in other cases, individual groups of students sign up and develop projects with friends/groups after-school. Please consider sharing with your students or incorporating in your classrooms. Register by March 1, 2015.

If you have any questions or would like to volunteer at the event – contact Lynne Jones at the Washington Pavilion:

[L.Jones@WashingtonPavilion.org](mailto:L.Jones@WashingtonPavilion.org).

- - - Editors note: Find a copy of the [2015 Guide to Greatness](#) – the guidebook for the Washington Pavilion’s Design Challenge: Survival: Stranded on the SD Prairie.



**WASHINGTON  
PAVILION**



## Minor mergers have massive consequences for black holes

By Dr. Ethan Siegel

When you think of our sun, the nearest star to our world, you think of an isolated entity, with more than four light years separating it from its next nearest neighbor. But it wasn't always so: billions of years ago, when our sun was first created, it very likely formed in concert with thousands of other stars, when a giant molecular cloud containing perhaps a million times the mass of our solar system collapsed. While the vast majority of stars that the universe forms—some ninety-five percent—are the mass of our sun or smaller, a rare but significant fraction are ultra-massive, containing tens or even hundreds of times the mass our star contains. When these stars run out of fuel in their cores, they explode in a fantastic Type II supernova, where the star's core collapses. In the most massive cases, this forms a black hole.

Over time, many generations of stars—and hence, many black holes—form, with the majority eventually migrating towards the centers of their host galaxies and merging together. Our own galaxy, the Milky Way, houses a supermassive black hole that weighs in at about four million solar

masses, while our big sister, Andromeda, has one nearly twenty times as massive. But even relatively isolated galaxies didn't simply form from the monolithic collapse of an isolated clump of matter, but by hierarchical mergers of smaller galaxies over tremendous time-scales. If galaxies with large amounts of stars all have black holes at their centers, then we should be able to see some fraction of Milky Way-sized galaxies with not just one, but multiple supermassive black holes at their center!

It was only in the early 2000s that NASA's Chandra X-ray Observatory was able to find the first binary supermassive black hole in a galaxy, and that was in an ultra-luminous galaxy with a double core. Many other examples were discovered since, but for a decade they were all in ultra-massive, active galaxies. That all changed in 2011, with the discovery of two active, massive black holes at the center of the regular spiral galaxy NGC 3393, a galaxy that must have undergone only minor mergers no less than a billion years ago, where the black hole pair is separated by only 490 light years! It's only in the cores of active, X-ray emitting galaxies that we can detect binary black holes

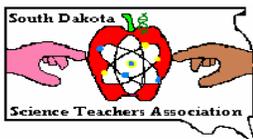


*NGC 3393 in the optical (L) by M. Malkan (UCLA), HST, NASA (L); NGC 3393 in the X-ray and optical (R), composite by NASA / CXC / SAO / G. Fabbiano et al. (X-ray) and NASA/STScI (optical).*

like this. Examples like NGC 3393 and IC 4970 are not only confirming our picture of galaxy growth and formation, but are teaching us that supermassive relics from ancient, minor mergers might persist as standalone entities for longer than we ever thought!

Check out some cool images and artist reconstructions of black holes from Chandra: <http://chandra.harvard.edu/photo/category/blackholes.html>

Kids can learn all about Black Holes from this cool animation at NASA's Space Place: <http://spaceplace.nasa.gov/black-holes>.



## SDSTA Officers

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**PAEMST Contact: Ramona Lundberg**  
Ramona.Lundberg@k12.sd.us

## Congratulations

Julie Olson is a science teacher at Second Chance High School, the alternative high school in Mitchell. She recently became one of 50 nominees worldwide for the first-ever Global Teacher Prize. The Top 10 will be announced in mid-February 2015. The winner of the Global Teacher Prize will be announced at the Global Education and Skills Forum in Dubai on March 16, 2015. Congratulations and Good Luck, Julie!

Allen Hogie, Brandon Valley High School math teacher, has been selected as the 2015 South Dakota Teacher of the Year. The announcement was made at a special recognition banquet Oct. 16, at the Best Western Ramkota Hotel and Conference Center in Pierre.

Congrats Allen.

The SDSTA Newsletter is published four times a year. The December/January issue (this one) is e-mailed to 130 paid members, and several school science departments.

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 paid conference registration may be given 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 \$50 per page (or 3 to 4 quarter pages).

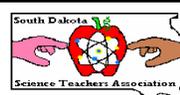
## STEM Quick Stops

Science, Technology, Engineering & Math

Try these 2 hour introductions to AWESOME NASA resources for excellent hands-on STEM teaching. No travel for these – they will be offered once a month, February – April 2015, over the Digital Video Network (SD DDN). Sign up for one, some or all.

Registration: Register on the SD Discovery Center website. <http://www.sd-discovery.org/>, click on Educators and Youth Leaders. Since this is a hands-on class, you are expected to collect the needed participation materials

Mail to: Deirdre Peck, SDSTA Treas  
409 S. Kline Street  
Aberdeen, SD 57401



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

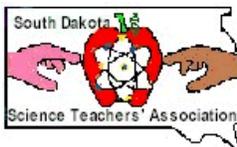
Name \_\_\_\_\_ Home Phone \_\_\_\_-\_\_\_\_\_  
Home Address \_\_\_\_\_ E-mail: \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

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

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

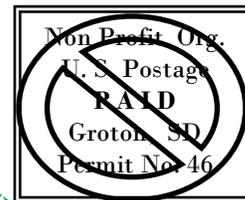
South Dakota Science Teachers' Association  
 Julie Olson and James Stearns  
 Editors, S D S T A Newsletter  
 15 North Fifth Street  
 Groton, SD 57445-2024



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# Calendar of Events      Calendar of Events

- January      Deadline to enter the SD—AAPT photo contest
- January      Registration open for National WWII Museum seminary in New Orleans
- January 31      Deadline to apply for Six Star Science OT Program—[www.frontiersinphys.org](http://www.frontiersinphys.org)
  
- February 5-6-7, 2015      Joint Science & Math Professional Development Conference
  
- March 1      Deadline to enter Design Challenge 2015 - [LJones@WashingtonPavilion.org](mailto:LJones@WashingtonPavilion.org)
- March 28      SD Ed Camp - <http://goo.gl/rV3MTx>
- April 24      SDSU Physics Bowl XLI      <http://www.sdstate.edu/phys/>
- June 3—August 9      SERF Fellowship

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