

Nebraska Science News



Nebraska Academy of Sciences



Nebraska Association of Teachers of Science

Serving Scientists and Science Educators Across the State of Nebraska

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FROM THE NAS PRESIDENT'S DESK

Neil deGrasse Tyson has a great quote that I like to say whenever someone doesn't understand an answer, or worse, believe the answer, to a question they ask in my planetarium: "The universe is under no obligation to make sense to you." This quote both humbles me in regards to how much we really don't know and drives me to keep trying to discover and learn more, no matter how challenging the universe presents itself; and together, we must help the youth around us to remain curious, give them tools to help satisfy that curiosity, and to remain curious no matter how challenging the efforts.

In these days of instant gratifications and constant distraction, it is that much more important we remain diligent in our efforts. But how can we accomplish this? First, as scientists, science educators, and leaders in scientific endeavors, we should be on the same page, or should I say, the same "webpage." I am looking forward to upcoming efforts to re-assess, re-organize, and re-invigorate the content at the Nebraska Academy of Science (NAS), Nebraska Association of Teachers of Science (NATS), and the Nebraska Junior Academy of Science (NJAS) websites. This will include better short term and long-term common goals for our scientific efforts, better communication for upcoming events, better sharing of best practices, and better ways to show our and our students' scientific progress, to name a few. This will begin with meetings and at least one retreat with the leaders of the three organizations, and continuing with the membership as progress builds.

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NATS PRESIDENT NEWS and VIEWS

Wow, where did the summer go? I hope everyone had time for family, friends, and relaxation this summer. The 2018-2019 school year is upon us and I hope everyone is ready for another great school year. This is an exciting time in science education as we start to implement our new College and Career Standards. I am excited to take what I have learned over the summer and begin to implement it into my classroom. The concept that our new standards are better preparing our kids for his/her future is what drives me to continue to change my teaching philosophy into three-dimensional learning. It is not easy to change but I understand that the direction in which science education is going will make our students better citizens.

Nebraska Association of Teacher of Science (NATS) is working very hard to help educators in this transition. We will continue to offer our one-day conferences; this year we are working with the 4-H Extension office. The goal is to provide professional development throughout the school year and to provide these opportunities closer to our members' home. NATS is in the process of continuing our work with our Professional Learning Network (PLN). PLN's are once per month conference calls that discuss a variety of different topics from storylines to phenomenon. This year we are working with our Kansas association to have Kansas educators share during this time as well as educators from Nebraska. It is our goal that we will have topics determined and announce these during our fall conference in Kearney, NE. We are excited about the fall conference once again this year and our continued relationship with our math counterparts. I hope everyone has a wonderful start to the school year.

Jodi L. Bahr, President
Harvard Public School

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Second, we must continue to volunteer for science-based events, especially those that are intended to inspire and excite youth towards science. Please continue: to help out with judging at various regional and state science fairs (the state competition is currently in April); to help out with, or even organize, with science camps during the summer; and to participate in science-based contests like the Nebraska Science Bowl (currently in February, which I would like to see NAS take over in the near future) and Science Olympiads (the state competition is also currently in April).

And third, remember to take time for yourself to continue your own personal scholarship. How can we expect the youth of Nebraska to share in our passion if we don’t have a passion to share? Look for various enrichment workshops with peers, conferences and pop-up conferences, and find like-minded people to work with and share your particular scientific passions. To quote deGrasse Tyson again: “The problem is not scientifically illiterate kids; it is scientifically illiterate adults.” We are the front line for scientifically enriching ourselves, our peers, and our youth. To find information about some of the items I’ve referenced here, please visit the [NAS website](#) and continue to visit often, especially as improvements are made!

Todd Young, NAS President
Wayne State College



NJAS NEWS

The Nebraska Junior Academy of Sciences is designed to promote science and technology across Nebraska by

providing incentives for students to apply creativity and critical thought to solutions of science, technology, engineering, mathematics, and engineering problems. It offers an opportunity for students to meet, exchange ideas, and discuss career possibilities with scientists and engineers from colleges and industries.

Students will develop a scientific research project, write an abstract of the project, and give an oral presentation the day of the competitions. Students will compete in two divisions: Grades 6-8 in the Junior Division and Grades 9-12 in the Senior Division. Each Regional Science Competition will select 6 junior and 6 senior high projects to advance to the State Science Fair. Judges at the State Science Fair will nominate ten Senior Division projects to attend the American Junior Academy of Sciences Conference. These students will present their research in a poster and round table session.

Regional Directors:

- Central – Hastings College – Neil Heckman, nheckman@hastings.edu
- Eastern – OPS – Dan Sitzman, daniel.sitzman@ops.org
- Northeast – Wayne State College – Adam Davis, adavis1@wsc.edu
- Panhandle – ESU #13 – Lisa Myles, lmyles@esu13.org
- Southeast – UNL – Julie Thomas, julie.thomas@unl.edu
- Western – UNTC – Tina Smith, tsmith24@unl.edu

The Regional Science Competitions are held each February and March. Contact the regional director for more information.

The State Science Competition will be April 11th, 2019 at Nebraska Wesleyan University at the Weary Center. Students can win scholarships, medals, certificates and other special awards. [CLICK HERE](#) for rules and forms.

Randall Lienemann
NJAS President

DATES TO REMEMBER

Click on the date below to learn more

[PIE Grant 4th Quarter Application Deadline – October 5, 2018](#)

[NATS Fall Conference Call for Proposals Deadline – August 31, 2018](#)

[NATS/NATM Fall Conference – September 20-22, 2018](#)

[NJAS State Science Competition – April 11, 2019](#)

[NAS Annual Spring Meeting – April 12, 2019](#)

[Nebraska State Science Olympiad – April 27, 2019](#)

SHARING KIDS TO PARKS DAY NATIONAL SCHOOL CONTEST

National Park Trust (NPT) invites students across the country to participate in the 9th annual **Kids to Parks Day** (KTP). KTP is a nationwide grassroots movement to celebrate America’s parks and public lands and waters. To inspire kids and schools to explore outdoors, we also host the **Kids to Parks Day National School Contest**, which is NOW OPEN! If you work at or attend a Title I school, you are eligible to enter and win up to \$1,000 to fund your *dream park experience*. The deadline for entries is **Thursday, February 14, 2019**. Winners will be announced on the website **Thursday, March 7, 2019**. [CLICK HERE](#) to learn more about the contest, download the entry form, and watch our school video from last year! Questions? Contact

Billy Schrack, (william@parktrust.org) or Katie Zimmerman, (katie@parktrust.org) or call 301-279-7275. Or if you would like to help sponsor this program, contact Maryann Kearns (maryann@parktrust.org).

TEACHING ENERGY EFFICIENCY

The Nebraska Energy Office is funding training on EPA's benchmarking tool to high school teachers. The training will give you a starting point to find operational savings in your school and provide STEM curriculum opportunities for your students. The University of Nebraska at Omaha (UNO) and the Nebraska Department of Education are developing curriculum incorporating the energy benchmarking tool into classroom exercises and projects, aligned with the new state science standards and offering experienced based learning for students. Due to limited seating and a growing popularity for the training, early sign-ups are encouraged. [CLICK HERE](#) to learn more and to register!

2018 THE COLEOPTERISTS SOCIETY YOUTH INCENTIVE AWARD PROGRAM

The Coleopterists Society, an international organization of professionals and hobbyists interested in the study of beetles, has established a program to recognize young people studying beetles. The Society has pledged to provide up to \$600 each year for the Youth Incentive Award Program. The Junior award is a monetary grant of \$200 and the Senior award is \$400. Award recipients also will receive up to \$200 (Junior) and \$400 (Senior) of equipment credit from the BioQuip Products catalog. In addition to monetary and BioQuip grants, award recipients will each receive a one year subscription to the society journal, *The Coleopterists Bulletin*. **This is for children of grades 7-12 only.** [CLICK HERE](#) to learn more and to apply!

NATS SCIENCE EDUCATOR POP-UP CONFERENCES

October 20, 2018 = 9:00 am – 4:00 pm CST at Geneva Library in Geneva, NE

November 3, 2018 = 8:30 am – 12:30 pm CST at Kimmel Research and Education Center in Nebraska City, NE

December 1, 2018 = 8:30 am – 12:30 pm CST at Raising Nebraska in Grand Island, NE

[CLICK HERE](#) to learn more and to register!

NASA NEBRASKA EPSCoR MINI-GRANT COMPETITION

There are two goals of the EPSCoR Research Mini-grant program: 1) To elevate the aerospace-related research being conducted in Nebraska for future infrastructure building and workforce development opportunities; and 2) To result in future proposals to NASA and/or other federal, state, or private organizations for funding. Mini-grants are not intended to be sustaining funding; rather they are intended to support a project or program for one year, allowing the project or program to grow and obtain more permanent funding elsewhere. Funding for non-NASA or non-aerospace related projects is not supported by the program at this time. Proposals are due August 30, 2018. [CLICK HERE](#) for more information!

NEBRASKA MATH & SCIENCE SUMMER INSTITUTES

The goal of the Nebraska Math and Science Summer Institutes is to offer Nebraska teachers of math and science intellectually rich graduate coursework that will enhance their ability to offer their students challenging courses and curricula. NMSSI courses are designed with teachers' schedules in mind, with 40 hours of instruction concentrated into a one-week period for one course, or a pair of courses over a two-week period. [CLICK HERE](#) for more information. You can also email Dr. David Harwood at dharwood1@unl.edu.

GEOSCIENCE BRIDGE PROGRAM FOR HIGH SCHOOL STUDENTS

The primary aim of this program is to expose high school students with an interest in the Earth Sciences to the Earth and its history, and to provide an introductory "bridge" into college life and studies with a cohort of other learners. Students can join a discovery-based field course where they will spend 9 days camping in Wyoming, Nebraska, and South Dakota, and 2 days on the University of Nebraska-Lincoln campus. [CLICK HERE](#) to learn more. You can also email Dr. Mindi Searls at msearls2@unl.edu.

NATIONAL SCIENCE FOUNDATION DISCOVERY RESEARCH PreK-12 WEBINAR

Join NSF program directors for an informational webinar on the Discovery Research PreK-12 program. This program seeks to significantly enhance the learning and teaching of science, technology, engineering, mathematics and computer science (STEM) by preK-12 students and

teachers, through research and development of STEM education innovations and approaches. Projects in the DRK-12 program build on fundamental research in STEM education and prior research and development efforts that provide theoretical and empirical justification for proposed projects. Projects should result in research-informed and field-tested outcomes and products that inform teaching and learning. Teachers and students who participate in DRK-12 studies are expected to enhance their understanding and use of STEM content, practices and skills. [CLICK HERE](#) to learn more and to register for the webinar!

APS PHYSIOLOGY WORKSHOP FOR LIFE SCIENCE TEACHERS

A free physiology workshop for life science teachers will occur in October in Omaha. This workshop's feature presentation is titled "Skeletal Muscle Oxygen Uptake and Utilization in Heart Failure." There will also be a career panel discussion on how to encourage science careers. For more information and to register, [CLICK HERE](#).

PIE GRANTS REPORT

NAS announced that it will receive \$57,600 from the Nebraska Environmental Trust for the "Nebraska Environmental Public Information and Education Minigrant Program". The Trust Board announced funding for the project at its meeting on April 5, 2018 in Lincoln. The project is one of the 105 projects receiving \$18,301,819 in grant awards from the Nebraska Environmental Trust this year.

The Nebraska Environmental Public Information and Education Minigrant Program will award Minigrants of up to \$3,000 each, to support the presentation and dissemination of information and perspectives that will stimulate enhanced environmental stewardship in any category eligible for Nebraska Environmental Trust (NET) funding. These categories are habitat, surface and ground water, waste management, air quality, and soil management. The grants seek to expand dialogue on important current conservation topics and to provide information on emerging or highly useful conservation methods. All Nebraska individuals, private organizations, and public entities are eligible to apply for these funds. This program will be administered by the Nebraska Academy of Sciences.

The Nebraska Legislature created the Nebraska Environmental Trust in 1992. Using revenue from the Nebraska Lottery, the Trust has provided over \$289 million in grants to over 2,000 projects across the state. Anyone – citizens, organizations, communities, farmers and businesses – can apply for funding to protect habitat,

improve water quality and establish recycling programs in Nebraska. The Nebraska Environmental Trust works to preserve, protect and restore our natural resources for future generations. <http://www.environmentaltrust.org/>

Five third quarter 2018 PIE grant applications were received and processed in July. Applicants include Lincoln Southwest High School – Species Diversity Study & Public Outreach Tour; Rainwater Basin Joint Venture – Engaging Citizen Scientists with Grassland Bird Monitoring; the Nebraska Recycling Council – Annual Awards Lunch and Workshop Project; Saving Grace Perishable Food Rescue – Perishable Food Pipeline Project; and Upper Niobrara White Natural Resources District – Range Day 2019. Recipients will be selected in September.

Fourth quarter 2018 applications are due October 5, 2018.

Grant forms and information can be found on our website by [CLICKING HERE](#).



The Nebraska Science News is a publication of the Nebraska Academy of Sciences, a private foundation associated with the American Association for the Advancement of Science.
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