

Biology - Chemistry - Medicine - Engineering - Zoology - Environmental - Botany - Physics

CRCST QUARTERLY NEWSLETTER

VOLUME LXXI NO. 4

WINTER 2014

Save the date!

CRCST Spring Symposium is April 23, 2015

INSIDE THIS EDITION

2-4

10

LOCAL

HAPPENINGS	
BOOK REVIEW	5
PROFESSIONAL	6-9
DEVELOPMENT & OTHER OPPORTUNI-	
TIES	

APPLICATION	
NOTEWORTHY NEWS	11

SCHOLARSHIP

HOLIDAY GREETINGS!!

It is hard to imagine that December has already arrived; and that holiday preparations are in full swing to the point that those of us who haven't had time to give it much thought feel that we are years behind already! We can all agree that the last few weeks in the classroom before a holiday break are challenging; with teachers trying to provide meaningful learning experiences in spite of the students who are already in vacation mode. With the challenge, however, comes hope in the future. Hope that vacation will allow us to 'de-stress' for a moment, clear our minds, catch up on some lesson plans and papers, and again ignite that spark of enthusiasm for sharing the wonders of science with all in our reach.

What is needed to keep this spark going is a mid-winter 'pick-me-up'. That means SECO's Ohio Science Institute in Columbus on January 26 and 27, 2015. Yes, this is what you need! It is a chance to recharge by attending meaningful, pertinent science sessions filled with all kinds of current ideas for teachers of prekindergarten to grade 11. in all of the science disciplines. There will be a number of STEM activities in which to partake and ODE will be there with the latest information on assessment for the New Ohio Revised

Learning Standards.

SECO is Ohio's state education science organization and the state's affiliate of the NSTA. For almost 40 years it has been supporting science teachers with a multiday science conference presenting the latest in pedagogy, current science content material, hands-on workshops, field trips, teacher support and prominent keynote speakers. It is a valuable experience that gives educators what they need to keep up with what is happening in other Ohio science classrooms.

Probably the most valuable aspect of the conference, though, is the chance to network with other teachers in а face-to-face environment. Picking up ideas online and from list serves can be quick and easy, but they are not always as meaningful as one-on-one discussions. With so many activities listed online, I find it more of a challenge to pick out one to see how it works for a specific circumstance. Additionally, once I get up from the computer that idea or suggestion escapes to the back of my mind and gone! Conference sessions are different; with teachers discussing the

values of the activity as they are doing it. Everything is right in front of them so they get a better idea of what is needed. They can discuss hypotheses as to why the outcome was such and then can offer extensions to the activity that could be used in the classroom. I have always found these inperson experiences to be the most rejuvenating for me, professionally.

With that in mind, I am hoping to see all of you at the 2015 SECO Science Institute at the Columbus Hilton Easton on January 26 and 27, 2015. More information on the conference and registration forms can be obtained at www.secoonline.org.

See you there!!! Early-bird registration ends January 5, 2015!

Tess Wearsch, CRCST President

UPCOMING EVENTS

January 26-27, 2015 SECO Science Institute Columbus Hilton Easton (www.secoonline.org)

NEOSF Science Fair: March 9-12, 2015

April 23, 2015 **CRCST Spring Symposium**

To register, or for more

SRC@cmnh.org

information on our Educator Workshops, please contact the Science Resource Center at

LOCAL HAPPENINGS



THE CLEVELAND MUSEUM OF NATURAL HISTORY

EDUCATOR WORKSHOPS

Discover Dinosaurs: Early Childhood Education

Wednesday, January 28, 2015, 4:30 - 7:00 pm

\$10 registration for SRC Members, \$15 for non-members

Join us for an exciting overview of the history of dinosaurs on Earth. In this

workshop you will discover how dinosaurs are found and named and learn more about the characteristics of a dinosaur. In addition, we will discuss carnivores and herbivores in the dinosaur world. Not only will you acquire creative ways to introduce your students to dinosaurs, you'll learn some exciting games and activities to use in the classroom.

Discover Dinosaurs: Early Childhood Education

Wednesday, January 28, 2015, 4:30 - 7:00 pm

\$10 registration for SRC Members, \$15 for non-members

Join us for an exciting overview of the history of dinosaurs on Earth. In this workshop you will discover how dinosaurs are found and named and learn more about the characteristics of a dinosaur. In addition, we will discuss carnivores and herbivores in the dinosaur world. Not only will you acquire creative ways to introduce your students to dinosaurs, you'll learn some exciting games and activities to use in the classroom.



Star Lab Re-certification – for Educators who have been trained but have not used Star Lab in over 2 years

Wednesday, February 4, 2015, 5:00 - 5:30 pm

\$5 registration for SRC Members, \$10 for non-members

Bring the night sky to your students! We have two portable planetariums available for loan to educators. Our portable planetarium is a cross-curricular tool for astronomy, Earth science and more that can be brought right into the classroom. It includes everything needed to present interactive, exciting lessons: an inflatable dome, projector, fan and accessories. Training is required in order to rent the portable planetarium

Star Lab PLUS Training - Educator Workshop

Wednesday, February 4, 2015, 5:30 - 8:00 pm

\$10 registration for SRC Members, \$15 for non-members

NEW! For Educators who have completed Star Lab Training Basics. This workshop allows Educators to go beyond the stars and delve deeper into the astronomy content.



Human Plus is a temporary exhibition on view at The Cleveland Museum of Natural History from September 27, 2014 to January 4, 2015

- For more information on school programs visit https://www.cmnh.org/Human-Plus
- Pre-registration is required for all Cleveland Museum of Natural History field trips.
- To schedule call (216) 231-8002 for more information.

MAMMOTHS MASTODONS

TITANS OF THE ICE AGE

Mammoths and Mastodons is a temporary exhibition on view at The Cleveland Museum of Natural History from November 22, 2014 to April 19, 2015.

- For more information on school programs visit https://www.cmnh.org/Mammoths-and-Mastodons
- Pre-registration is required for all Cleveland Museum of Natural History field trips.
- To schedule call (216) 231-8002 for more information.



Akron Global Polymer Academy

http://agpa.uakron.edu/p16/index.php

Dear Educator,

Have you heard of the Akron Global Polymer Academy (*AGPA*)? A division of the University of Akron's College of Polymer Science and Polymer Engineering, AGPA creates and distributes knowledge about polymer science, polymer engineering and STEM education. Our goal is to provide a variety of resources to educate students of all ages about polymer science and polymer engineering. For teachers, we offer a variety of inquiry-based lesson plans that can be utilized as innovative, engaging, and powerful vehicles to ignite students' interest in science. In an effort to meet the needs of professional development providers, we offer inquiry-based modules for teacher education. These educational resources are aligned to national standards for professional development, content standards, and best teaching practices.

In addition to the large amount of standards based academic content, our website also provides interactive games, informative videos, and demonstrations. Single and multi-day professional development seminars, guaranteed to spark inquiry, are offered free of charge at various times throughout the year. We can schedule a visit to your school or a field trip to campus to tour our world class facilities. Feel free to contact me if you are interested.

Lastly, I want to tell you about the Rubber Band Contest for Young Inventors. (http://rubberbandcontest.org/) Middle school students are invited to invent a device that uses rubber bands in a unique way. The contest is open to students in grades 5-8. Cash prizes are awarded to the top six entries in two categories, Arts & Leisure, and Science & Engineering. In

all, over \$6,000 in prize money is available, with cash awards for the four schools submitting the most entries. The contest is reinforced by one of the lessons mentioned above, and is a great way to bring inquiry to your classes!

I hope you have a wonderful school year!

John Fellenstein Content Specialist Akron Global Polymer Academy jfellenstein@uakron.edu



Let The Carton Live On; A Recycling Program



Increase milk and juice carton recycling now!

The Cuyahoga County Solid Waste District with support from the Carton Council announces "Let The Carton Live On." For America Recycles Day 2014, we want schools interested in starting a recycling carton program or improving their school's carton recycling rate. The Solid Waste District have recycling bins in the shape of a milk carton, generously donated from the Carton Council. Schools with Rumpke, Waste Management and Republic recycling services can sign up for the recycling bins. Schools with other recycling haulers should work with Kathleen Rocco, Education Specialist of the Solid Waste District to determine if carton recycling is accepted by the hauler and/or recycler.

Carton recycling bins should be placed in the cafeteria along with a pour off bucket. All juice boxes and milk cartons must be emptied and straws removed to recycle following the "drink, empty, recycle" behavior model. Cartons from breakfast and lunch should be recycled. The custodial staff should be informed of the program, especially if they are to handle the removal of cartons for recycling. The best practice for carton recycling is to place them loose in a recycling dumpster as plastic bags can trap moisture and odors rendering cartons not recoverable.

Schools with less than 400 students can get up to two carton recycling bins and a set of "drink, empty, recycle" posters. Schools with over 400 students can obtain up to three recycling bins and a set of "drink, empty, recycle" posters. Schools will also receive promotional material to be used at school and can be sent to parents and educational material that can be used in the classroom.

The goal of the program is to capture 100% of the milk cartons and juice boxes consumed on school grounds. Please share your results with the school community, Cuyahoga County Solid Waste District and the Carton Council through articles, media announcements, photos and/or videos.

Contact Kathleen Rocco at 216-443-3731 or krocco@cuyahogacounty.us to start "Let The Carton Live On" recycling program. Do not miss out, start recycling cartons now.





BOOK REVIEW

I reviewed a newly released book, <u>Becoming Dinosaurs</u>, by David Trexler for "NSTA Recommends." It is a beautiful volume and offers a different perspective on global warming and climate change.

Cary Seidman, Science Teacher, Ruffing Montessori School

Becoming Dinosaurs, by David Trexler (Sweetgrass Books, ISBN # 978-1-59152-092-4)

Becoming Dinosaurs offers a disciplined and focused analysis of climate change within the context of the numerous catastrophic changes the earth has undergone. David Trexler is a paleontologist who has taken on the task of separating the claims of climate change deniers on the one hand and hysterical doomsayers on the other to arrive at a rational – and still quite frightening – set of conclusions as to how humans may be able to mitigate the effects of inevitable global warming. He cites long-term data to demonstrate that we are, irrespective of human activity, in a warming period. Industry and agriculture, he asserts, have the potential to accelerate warming to a disastrously rapid rate.

Trexler notes that people will probably be able to adapt to a gradually changing climate and will most likely be able to deal with increasingly extreme weather, some ocean acidification, and a steady, slow rise in sea level. However, if these events are hastened by unnaturally rapid temperature increases worldwide, a prospect which, although avoidable, Trexler finds disturbingly likely, it will be "game over" for humanity. The culprit will be the release of methane ice, clathrates, presently trapped beneath ice and cold ocean water. If methane clathrate deposits were to be warmed to the point that they turn to gas and enter the atmosphere, temperatures around the world would rise so quickly that many life forms would find themselves unable to survive, as the extreme temperature spike would create a scenario similar to the mass extinctions at the end of the Permian period.

During his analysis of climate change through the earth's history, Trexler explains that the current view of the K-T extinction, caused by the well-documented impact occurrence 65 million years ago, has been misrepresented as the key event in the extinction of the dinosaurs. Trexler cites paleontology studies showing that dinosaurs were on their way out by that time anyway, occupying increasingly specialized ecological niches. The K-T impact and its aftereffects made those specialized environments unsustainable and may have been the concluding event in an extinction that was already underway.

In a clean, readable style that is intended for a general audience, certainly within the reading levels of a high school biology or ecology class, Trexler makes his case for what does and does not make a difference in trying to moderate the effects of climate change. His work suggests that many so-called "green" initiatives are just feel-good efforts and are not effective agents in preventing warming. We need to target those activities that inject buried carbon into the biosphere. Contributors to that class of carbon sources include carbon in animals and plants as well as carbon dioxide, carbon monoxide, and methane. The overarching caution must be, Trexler asserts, to avoid to as great an extent as we can, the release of the trapped methane clathrates presently on the ocean floors. This release would initiate runaway warming that many forms of life, including ourselves, could not survive. Interestingly, he asserts that the natural warming in which we find ourselves is not is not a condition we should attempt to reverse, since the earth, still emerging from a cooler epoch, is returning to a state of equilibrium. But he warns that failure to switch to alternatives to coal for energy generation (such as nuclear, wind, solar, hydrogen, geothermal, and hydro) within the next few decades would set an irreversible and catrastrophic chain of events into motion. He suggests that sequestration of carbon and hydrocarbons is essential. He further states that, given funding for adequate research, the methane clathrates themselves could be a source of future energy needs.

David Trexler's beautifully illustrated book, with clear, informative graphics and abundant citations for those seeking more information should be essential reading for anyone concerned with global warming. High school classrooms would be great places to start.

PROFESSIONAL DEVELOPMENT AND OTHER OPPORTUNITIES

Subject: \$1000 Scholarships for Amazon Rainforest PD Workshop

Educator Academy in the Amazon Rainforest + Machu Picchu

The July 1-11, 2015 Educator Academy in the Amazon Rainforest of Peru is a cross-curricular professional development workshop for K-12 formal and informal educators to learn and use:

- 21st Century Instruction: 5E Lesson Design ~ Inquiry-Based Exploration ~ STEM
- Inquiry Protocols & Resources: Project Learning Tree ~ Cornell Lab of Ornithology ~ & More!
- Global and Cultural Perspectives: Service Learning ~ Sustainability ~ Global Education

Join Al Stenstrup, Project Learning Tree (PLT); Lilly Briggs (Cornell Lab of Ornithology), Christa Dillabaugh, Amazon Rainforest Workshops; and Dr. David Pearson, Wildlife Travellers' Guide to Peru; and work side-by-side with scientists Dr. Steve Madigosky, Widener University; and Randy Morgan, Curator/Entomologist, Cincinnati Zoo as you:

- Participate in citizen science projects and inquiry based field studies on a 1/4-mile Rainforest Canopy Walkway in one of the most biologically diverse environments on the planet.
- Spend a day in an Amazon village as you explore the complexities of sustainability and the role of education in creating a sustainable future for Amazon children.
- Work with fellow educators to explore strategies for using the Amazon as a vehicle for incorporating STEM education, inquiry-based learning, and sustainability science education into your classroom.

PLT Certification, BirdSleuth resources and 50 ASU PD Hours included. Academic Credit and Machu Picchu Extension optional. \$1000 scholarship deadline March 1, 2015. Program cost is \$1240 + air for scholarship recipients. Space is limited! Register early to secure your spot!

Get the details and download a syllabus and scholarship application at: http://www.amazonworkshops.com/educator-academy.html

National Space Biomedical Research Institute's Graduate Education Program in Space Life Sciences

Audience: Graduate Students Interested in Pursuing Doctoral Degrees

Proposal Deadline: Feb. 17, 2015

NASA Robotic Mining Competition 2015

Audience: Higher Education Educators & Students

Event Date: May 18-22, 2015

Don't miss out on upcoming NASA education opportunities.

For a full list of events, opportunities and more, visit the Educator and Student Current Opportunity pages on NASA's website:

- -- Educators http://www.nasa.gov/audience/foreducators/current-opps-index.html
- -- Students http://www.nasa.gov/audience/forstudents/current-opps-index.html

Space Shuttle Thermal Protective Tiles Available for Educational Use

NASA invites eligible U.S. educational institutions and museums to request space shuttle thermal protective tiles and other special items offered on a first-come, first-served basis while quantities last. Organizations previously allocated thermal protective tiles may request an additional three tiles.

There will be a nominal shipping fee that must be paid online with a credit card. To make a request for special items online, visit http://gsaxcess.gov/htm/nasa/userguide/Special Item Request Procedure.pdf.

Questions about this opportunity should be directed to GSAXcessHelp@gsa.gov.

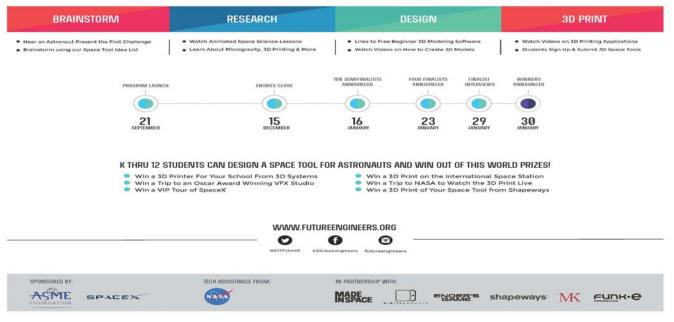


Page 7



WHAT WILL YOU 3D PRINT IN SPACE? A 3D PRINTING IN SPACE CHALLENGE FOR K12 STUDENTS

GO TO FUTUREENGINEERS.ORG TO LEARN HOW 3D PRINTING IS TAKING SPACE EXPLORATION TO NEW HEIGHTS, AND TO MARS!



Free Smithsonian's Stars Lecture Series

Jan. 24, 2015 – Observing the Origin of the Universe From the South Pole

After three years of observing from the South Pole, scientists may have found confirmation that the universe underwent a burst of inflationary growth at the time of the Big Bang. Cosmologist Colin Bischoff will discuss these findings as well as the excitement of astronomy from Antarctica.

Feb. 21, 2015 – Tracing the Structure of the Universe With Galaxy Surveys

Studies of galaxy formation and cosmology have exploded in recent years due to the immense data obtained from large galaxy surveys. Postdoctoral fellow Cameron McBride will discuss how observational data and theory are combined to better understand fundamental questions in our universe, and will highlight some exciting results from ongoing research.

For more information about the Smithsonian's Stars Lecture Series, visit http://airandspace.si.edu/events/lectures/smithsonian-stars/. Questions about this lecture series should be directed to the visitor service line at 202-633-2214.

CALLING ALL MIDDLE SCHOOL STUDENTS!

6th, 7th and 8th graders tell us how math moves your world.

Each year, MathMovesU® awards 150 middle school students nationwide \$1,000 scholarships to attend math and science camps and programs, or to save the money for college. Raytheon also donates a \$1,000 matching grant to each winning student's middle school

Download the application now. The deadline for applications is February 7, 2015.

http://www.mathmovesu.com/about-mathmovesuscholarships/mathmovesu-middle-school-



NSTA Information

2015 National Congress on Science Education (NCSE) July 15-18, 2015, Hilton Omaha Hotel in Omaha, Nebraska Meeting information will be posted at http://www.nsta.org/about/collaboration/congress.aspx on January 15, 2015.

The NSTA **Learning Center** offers a variety of professional learning activities including a Web Seminar Series that continues through February 2015.

NSTA **National Conference** is in Chicago, IL; March 12-15, 2015. See http://www.nsta.org/conferences/national.aspx for details.

US Department of Energy and **American Geosciences Institute** present Energy Literacy Essential Principles videos at https://www.youtube.com/watch?v=mvOTaytRPmE

National Science Foundation video resources available at http://www.successfulstemeducation.org/



Win a Shell Science Lab Makeover Valued at \$20,000 for Your School Are you a science teacher succeeding in providing exemplary lab instruction with minimal equipment and resources? The Shell Science Lab Challenge offers you a chance to compete to win a school science lab makeover, valued at \$20,000, by sharing your creative approach. Middle and high school science teachers (grades 6-12) in the

United States and Canada who have found innovative ways to deliver quality lab experiences with limited school and laboratory resources and teach underserved populations are encouraged to apply! The deadline for submissions is **December 19, 2014**. All winners will receive Ward's Science lab equipment, Shell cash grants, NSTA memberships, and support to attend NSTA Conferences on Science Education. The grand prize winner and four national finalists will be honored at a special banquet and ceremony <u>NSTA's National Conference on Science Education in Chicago March 12 to 15, 2015</u>. For more information about the Challenge, download an application at http://www.nsta.org/shellsciencelab or email shellsciencelab@nsta.org

To learn more about the competition, stop by the Shell Lab Challenge Booth on NSTA Avenue in the Exhibit Hall at the NSTA Richmond, Orlando and Long Beach area conferences.

To view the archived webinar go to:

The direct link for the blackboard video is: https://sas.elluminate.com/site/external/jwsdetect/playback.jnlp?psid=2014-10-02.1349.M.67800DABB36DC3A987AE131B41720C.vcr&sid=2256

NOVA Education offers *Spark Plugging you in* to *STEM Resources* at http://www.pbs.org/wgbh/nova/blogs/education/. To subscribe to the *SPARK* newsletter visit: http://www.pbs.org/wgbh/nova/education/

VOLUME LXXI NO. 4

Ohio State University's Stone Lab Announces Summer 2015 Courses

GIBRALTAR ISLAND – <u>Stone Laboratory</u>. Ohio State University's Island Campus on Lake Erie has announced its 25 summer 2015 courses. Applications will be available starting January 1, 2015.

Stone Lab is once again offering courses in June, July and August that will get students out of the classroom and into the field to experience science first-hand. For each course, students can earn .5 to four semester credits, transferrable to most colleges.

Both introductory and upper-level courses are offered. One-week introductory classes are open to advanced high school students as well as current college students. College and graduate students can take one- or five-week upper-level courses. Both high school students and college students from any university can earn college credit at Stone Lab. Small class sizes allow maximum interaction with students who share similar interests and with expert professors and researchers from all over the country.

Five one-week classes aimed specifically at educators help teachers meet professional development requirements and learn hands-on lessons they can take back to their own students. Teachers network with fellow education professionals and share ideas with peers while enhancing their own scientific knowledge.

In addition, Stone Lab offers eight non-credit workshops covering everything from algal blooms to outdoor photography.

This summer's courses are listed at stonelab.osu.edu/courses, and applications are available at stonelab.osu.edu/applynow. Courses are filled on a first-come, first-served basis, so all students and educators are encouraged to submit their applications by March 17, 2015.

Participants in for-credit courses are eligible for tuition assistance, which ranges from \$100 to \$2,500 per person based on need and academic record. Students in five-week courses can apply for part-time jobs at the laboratory to cover room and meals. The scholarship and job application deadline for college students and educators is March 6. High school students should submit scholarship applications by March 17. For more information, visit stonelab.osu.edu/costs/aid.

Located on the 6.5-acre Gibraltar Island in Put-in-Bay harbor, Stone Laboratory is Ohio State's Island Campus on Lake Erie and the education and research facility of the Ohio Sea Grant College Program. Established in 1895, Stone Laboratory is the oldest freshwater biological field station in the United States and the center of Ohio State University's teaching and research on Lake Erie. Stone Lab offers 25 college-credit science courses each summer for undergraduate and graduate students, advanced high school students, and educators. For information on Stone Laboratory, visit stonelab.osu.edu.

Contact

Arleen Pineda, stonelab@osu.edu, 614-292-8949

On the web at ohioseagrant.osu.edu/news/?article=711

CRCST
Cricket Regret Consul

The Cleveland Regional Council of Science Teachers
National Science Teachers Association National Conference Scholarship Opportunity
for Northeast Ohio Teachers

Two applicants will be granted \$800 each to support their registration, travel and room & board to the NSTA National Convention held in the spring of the year. \$650 will be provided if you are selected from the applicants. The additional \$150 will be provided after you fulfill the post-convention requirements. \$800 may not cover all expenses but it will likely cover the majority of the cost. Applicants may, but are not required to, be from the same school or district. Awardees may count on CRCST members to provide help in all areas. Questions? Call Susan Clay at 440-570-1155.

Requirements for applicants:

- Must be a member of both CRCST < www.crcst.org > and NSTA < www.nsta.org > when the application is submitted.
- •Must submit all parts of the application by mail (Susan Clay, 6484 State Rd. 12D, Parma, OH 44134) or email (<u>suzieclay@aol.com</u>) prior to the deadline of January 15, 2015 including:
 - An at least 250 word essay addressing your interest in attending the NSTA national convention.
 - An example of a science lesson that you have used with your students and a discussion
 of it's value to the students, i.e., how did it improve their understanding of the subject of
 the lesson. A brief discussion of your philosophy of teaching science should be included
 as well.
 - o A letter of recommendation from your principal.
- •Following your conference experience you will be required to:
 - Submit an article discussing your experience for publication in the CRCST Quarterly Newsletter of at least 600 words.
 - Present a concurrent session (generally about 50 minutes) at the next CRCST Fall Conference to show how you incorporated information and/or skills gained at the convention into (an) exemplary lesson(s) that you have developed and used in your classroom. You may co-present with the other convention attendee.

Please include the data below with your application packet

Name:	Date:
Home or Cell Phone: ()	E-mail:
School Name and Address:	
3	ZIP
NSTA membership number:	CRCST membership expiration date:
Grade(s) Currently Teaching:	Years of Teaching:
Principal's Name:	School Phone: ()

VOLUME LXXI NO. 4

NOTEWORTHY NEWS



A warm congratulations to Catherine "Kay" Haggerty, former CRCST member and retired Erieview Catholic High School biology teacher, who celebrated her **100th** birthday on November 21, 2014. Wishing you many more happy birthdays!

NOTES FROM PAST PRESIDENT SUE CLAY

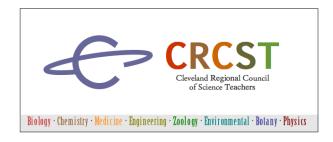
I want to thank everyone who helped CRCST in the last two years while I served as President. It has been wonderful to represent NE Ohio science teachers at various science conferences. I look forward to more years working with CRCST either on the Board or as an active member. Please continue to support the work CRCST is doing to promote science education in NE Ohio.

MONEY FOR NSTA IN CHICAGO

In fall of 2013, the CRCST Board decided to offer a grant to help two members of CRCST and NSTA attend the National NSTA Conference. The 2015 NSTA National Conference will be in Chicago, IL from March 12 - 15, 2015. This grant is designed for K-8 teachers of science. The CRCST Board has opened this up to all K-8 teachers.

The deadline will be January 15, 2015 and the new application will be on the CRCST website. This is another way to add to your professional development. Again the implementation of Next Generation Science Standards will be highlighted. Besides all the great sessions that are offered, this is a great way to network with fellow science educators. Please think about applying for the money to attend NSTA. Information on the March NSTA National Conference can be found on the NSTA website, www.nsta.org.

The grant application will be found on the previous page of the newsletter.



CRCST

Ann Thompson, Editor
Cleveland Metropolitan School District
Hannah Gibbons-STEM School
1401 Larchmont Rd.
Cleveland, Oh 44110

We are on the web!

www.crcst.org

https://www.facebook.com/pages/CRCST-Cleveland-Regional-Council-of-Science-Teachers/75692664533? ref_type=bookmark