

## UPCOMING EVENT!!

**Fall Conference**  
**Saturday,**  
**October 17, 2015**

**Beaumont High  
School**

**Keynote Speaker:**  
***Yohannes***  
***Haile-Selassie***

## Your Personal Invitation....

Happy summer to all.

Yes, it finally stopped raining – at least for a few days. It is the end of June and I still do not have my garden planted. No veggies until frost, I guess. This makes me wonder what kind of an extreme summer we are embarking upon and how much of this is due to natural phenomena or as a result of our global climate change. I definitely feel that WE have played a critical role in the climate problems that we now encounter.

As science teachers and proponents of science education, we have a responsibility not only to teach about climate change but to live it. I see teachers adding this topic to their curriculum but I do not always see their putting it into practice. I walk into many classrooms and see a waste basket half full of paper that should be in the recycle bin. Everyday the trash bins next to the copy

machines are almost full of paper that should have been tossed into the recycling container.

Are you doing enough to promote good environmental practices among your coworkers and students? I know a teacher who loudly expounded the horrors of the filled wastebasket in the workroom right in front of his coworkers and promptly removed all paper relocating it into the recycle bin. It only takes a second and what an example it sets. Eventually the recycle bin became much fuller than the waste basket.

Only one event – one graduation party – that I attended these past few months had a recycle bin for the plastics and glass. How simple it is to have a second bin labeled ‘Recycle’

whenever you have a party, a simple get-together, or even a major event. Yes, you may have to separate some garbage out of it, but sooner or later people will catch on; and, isn't that a small price to pay for helping to save the environment.

We change the world by example.

*Tess Wearsch,*  
*CRCST President*

## INSIDE THIS EDITION

PRESIDENT'S MESSAGE	1
FALL CONFERENCE	2
FALL CONFERENCE REGISTRATION FORM	3
LOCAL HAPPENINGS	4-6
PROFESSIONAL DEVELOPMENT	7-12
TEACHER RESOURCES & GRANTS	14-15
A CALL FOR SCIENCE LEADERS	16

## UPCOMING EVENTS

**National Congress  
on Science  
Education**

**July 15-18, 2015**  
**Omaha, Nebraska**

## **CRCST FALL CONFERENCE INFORMATION**

**Dr. Yohannes Haile-Selassie is the Keynote!!**

**CRCST Fall Science Conference**

**Oct. 17, 2015 at Beaumont High School**



**March 2011.** The upper and lower jaws of a hominid are unearthed in the Afar region of Africa by a team led by Yohannes Haile-Selassie of the Cleveland Museum of Natural History. Enthusiasm mounted in Haile-Selassie as he could tell that something was different. Haile-Selassie is the curator of Physical Anthropology at CMNH.

**May 2015.** After intense investigation, it is official! Haile-Selassie's team unearthed a new species of ancestral hominid that co-existed with Lucy.

**Oct 17, 2015.** CRCST will host Yohannes Haile-Selassie as its keynote speaker for the Fall Science Conference at Beaumont High School in University Heights. Make plans now to attend and hear one of the great contemporary anthropologists of the world here in our own backyard. He will be discussing the discovery of *Australopithecus deyiremeda* and its importance in the study of our human origins. The discovery also marks another milestone for our Cleveland Museum of Natural History as a world leader in the study of hominid evolution.

Plan to join us there for this exciting presentation, the concurrent sessions, and camaraderie with other science teachers at the conference. The registration form is attached on the next page and will be online at [www.crcst.org](http://www.crcst.org).

# FALL CONFERENCE REGISTRATION FORM



Cleveland Regional Council of Science Teachers  
Cosponsored by SECO  
**45th Annual Fall Conference**  
**Beaumont School**  
**3301 North Park Boulevard**  
**Cleveland Heights, OH 44118**  
**Saturday, October 17, 2015**



## Tentative Schedule

7:30 – 8:15 am	Registration, continental breakfast, networking & browsing vendor displays
8:30 - 9:15 am	Concurrent session I
9:15 - 9:30 am	Annual Membership Meeting
9:30 - 10:15 am	Keynote address –Dr. Yohannes Halie-Selassie, Cleveland Museum of Natural History
10:20 – 10:50 am	Vendors and refreshments
11:00 - 11:45 am	Concurrent session II
11:55 - 12:40pm	Concurrent session III
12:40 - ???	OESTA Rock Raffle

Concurrent session topics include earth/space, physical, biological, integrated science and technology for elementary through high school classrooms. Vendors also back by popular demand. Explore the new STEM wing of Beaumont School, professional science education organizations' displays, and more.

Questions: Barb Kooser, 216-225-8136

## CRCST Fall Conference Registration

Please use one form per person, copy as needed.

	<i>Early-bird (by Oct. 1)</i>	<i>On-site</i>
Conference only (existing member)	\$25	\$30
1 year CRCST membership & conference	\$40	\$45
2 year CRCST membership & conference	\$55	\$60
3 year CRCST membership & conference	\$70	\$75
1 year CRCST membership & conference <i>(full time education students)</i>	\$20	\$25

Additional donation to CRCST - \$ \_\_\_\_\_

Name: \_\_\_\_\_ H Phone (\_\_\_\_) \_\_\_\_\_

H Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip \_\_\_\_\_

School/Work Site \_\_\_\_\_

City: \_\_\_\_\_ Zip \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_ E-mail \_\_\_\_\_

Make check payable to **CRCST** Mail to: Mark Waner, Dept. of Chemistry, John Carroll University,  
1 John Carroll Blvd., University Heights, OH 44118

## LOCAL HAPPENINGS



### Branch Out - Tree Houses, Nature Exploration and Adventure

**Saturday, May 23 - Sunday, August 23**

Tuesdays, Thursdays - Saturdays: 10 am - 5 pm; Wednesdays - 10 am - 9 pm; Sundays - Noon - 5 pm; closed Mondays.

Explore a series of magical, interactive treehouses this summer at the Cleveland Botanical Garden. Five locally designed, architecturally innovative treehouses will be installed throughout the garden beckoning guests of all ages to come out and play.

Kids can forget about their electronic devices and let their imaginations run wild at Branch Out where each treehouse explores a theme connected to learning and fun including art, music, reading, math and play. Enticing activities and fun facts are interspersed throughout the garden inviting hours of adventure and discovery.

Visit: <http://www.cb garden.org/branch-out.aspx>

### Garden Summer Wednesdays

**Wednesdays, June 3 - August 26** / Garden open until 9 pm. Join us for a summer of midweek magic as our popular *Gourmets in the Garden* and *Cocktails in the Garden* series return each Wednesday evening. Learn cooking tips from some of Cleveland's top chefs and take a stroll through the Garden during a late sunset, cocktail in hand. Visit <https://www.cb garden.org/calendar-of-events.aspx?eid=26657&reid=&sdate=6/24/2015&ModuleId=92> for more information.

### Teacher Membership at CBG

- Receive a \$15 discount off any current membership level (up to \$90 Family Advantage, and excluding prior Teacher Membership levels)
- Good for all new memberships and when you renew
- Free admission to the Eleanor Armstrong Smith Glasshouse and ten acres of beautiful gardens on our University Circle Campus (excludes special ticketed events)
- 2 one-time use guest passes, valid for one year
- 10% discount at The Garden Store

Subscriptions to *The Garden Muse*, the quarterly magazine, as well as *The Garden Minute*, the monthly email newsletter - both exclusive to members

- Free admission and/or additional benefits at nearly 300 gardens throughout North America and the Cayman islands, through the Reciprocal Admissions program
- **Free borrowing** privileges of our Teacher Kits

### School Membership at CBG

- One year borrowing privileges of our educational resources
- One 90-minute introductory workshop at the Garden
- Discounted rate for educator workshops
- \$2 coupon for discounted admission for school staff

School Membership Rate is \$125.

## **LOCAL HAPPENINGS**



### **Young Explorers Club**

Children ages 8-12 are invited to join an exciting new program at the Cleveland Botanical Garden! The adventure kicks off in July, with special programs on the 2nd Sunday of each month. We will explore all things garden and nature related including behind-the-scenes experiences, nature based creations and science experiments.

By joining the Club, members are invited to attend as many monthly programs as they can attend throughout the year. Any member who attends 7 or more will be invited to a special summer celebration in July 2016 to wrap up year one of the Young Explorers Club.

[Registration March – June, so sign up now!](#)



### **Rejuvenate The Essence and Art of Teaching**

**July 28-30, 9:30-3:30**

Get rejuvenated before the start of the school year in this workshop presented by the **Cleveland Botanical Gardens and the Cleveland Museum of Art**. Inspired by garden themes and plants we'll experiment with new teaching techniques in both spaces and complete activities designed to revitalize you as an individual. Explore ideas for classroom projects influenced by the CMA's fall exhibition [Painting the Modern Garden: Monet to Matisse](#) and the inviting resources of the Botanical Gardens. For more information visit the [website](#).



## LOCAL HAPPENINGS

Celebrating 22 years on **Friday, August 7, 2015**, from 7:00 p.m. to 12:00 a.m. VIP party presented by SCENE Magazine 6:00 p.m. - 9:00 p.m. Guests must be 21 or older to attend.

**Twilight at the Zoo**, presented by Medical Mutual will feature 18 Cleveland bands playing pop, rock, reggae, swing, country, and blues. Admission for all partygoers includes cover charge, an assortment of food, Samuel Adams beer, Angry Orchard, wine and soda. For more information and to purchase tickets go to [http://www.clevelandzoosociety.org/events/schedule-of-events/2015/08/07/twilight-at-the-zoo?](http://www.clevelandzoosociety.org/events/schedule-of-events/2015/08/07/twilight-at-the-zoo?utm_source=newsletter&utm_medium=email&utm_content=Buy%20Tickets&utm_campaign=May%202015%20Newsletter)

[utm\\_source=newsletter&utm\\_medium=email&utm\\_content=Buy%20Tickets&utm\\_campaign=May%202015%20Newsletter](http://www.clevelandzoosociety.org/events/schedule-of-events/2015/08/07/twilight-at-the-zoo?utm_source=newsletter&utm_medium=email&utm_content=Buy%20Tickets&utm_campaign=May%202015%20Newsletter)



Organizations can enjoy discounts when zoo memberships are purchased through the **Bulk Buy** program.

See [http://www.clevelandzoosociety.org/membership/corporate-champions?](http://www.clevelandzoosociety.org/membership/corporate-champions?utm_source=newsletter&utm_medium=email&utm_content=Read%20More%20Online&utm_campaign=May%202015%20Newsletter)

[utm\\_source=newsletter&utm\\_medium=email&utm\\_content=Read%20More%20Online&utm\\_campaign=May%202015%20Newsletter](http://www.clevelandzoosociety.org/membership/corporate-champions?utm_source=newsletter&utm_medium=email&utm_content=Read%20More%20Online&utm_campaign=May%202015%20Newsletter)



### THE ARTIST IN ME!

Age: Ages: 11-14  
Number of days: 5 days  
Available: July 13 - 17



Encounter undersea life through the eyes of a young artist! Budding artists sketch and paint freshwater and marine animal images using pencil and water color medium. Campers explore the art and science found in nature and gain an appreciation for the beauty around them. We'll travel to the Cleveland Museum of Natural History to investigate Ohio's ancient fish then to the Cleveland Art Museum to search for aquatic animal in great works of art. We'll even watch a stingray create artwork, too. Join us for this creative sea adventure.

### SHARKS AND OTHER PREDATORS!

Number of days: 5 (including one overnight)  
Age: 8 - 11  
Available: July 6-9 & one night overnight July 10 - 11

Sleep with the sharks and become a shark expert! Spend four days and one night investigating a shark's life. Track a great white shark in the Atlantic Ocean. Talk to a SCUBA diver in the shark tank to discover how we feed and care for sharks. You'll touch shark skin, and teeth to discover what make these creatures such efficient predators. Compare sea predators at the aquarium to land predators at the zoo. Join us as we explore sharks and other predators from the sea, land, lakes, and rivers.

**PROFESSIONAL DEVELOPMENT, AND OTHER OPPORTUNITIES****AKRON GLOBAL POLYMER ACADEMY WORKSHOP:  
INQUIRY BASED LEARNING USING POLYMERS****Date:**

Wednesday, July 22<sup>nd</sup> from 9am-4pm

**Location:**

Room 130, Polymer Engineering Academic Center  
250 South Forge Street, Akron, OH 44325  
The University of Akron

**Purpose:**

Hands-on-learning about new lesson plans developed in The University of Akron Research Experience for Teachers Program in Polymers

**You Will Receive:**

- Lesson Plans
- Free Classroom Materials
- Certificate of Participation
- Lunch will also be provided
- There is NO FEE to attend!

**To Register:**

Online ([https://akron.qualtrics.com/SE/?SID=SV\\_6JPtzeSNs9kURmJ](https://akron.qualtrics.com/SE/?SID=SV_6JPtzeSNs9kURmJ))  
or contact John Fellenstein at [jfellenstein@uakron.edu](mailto:jfellenstein@uakron.edu)

**Questions:**

Please contact John Fellenstein ([jfellenstein@uakron.edu](mailto:jfellenstein@uakron.edu))  
or Dr. Kevin Cavicchi ([kac58@uakron.edu](mailto:kac58@uakron.edu)).

**Website:**

<http://agpa.uakron.edu/p16/polymers-workshop.php>

The University of Akron Research Experience for Teachers Site in Computer Science and Engineering is sponsored by the National Science Foundation 1161732

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation



## PROFESSIONAL DEVELOPMENT, AND OTHER OPPORTUNITIES



### “Dig In” to Plant Science and Literacy

Cleveland Botanical Garden

Teacher Training

**Free exclusively for grades K-4 CMSD teachers**

For teachers/districts outside of CMSD: \$175.00 to cover the cost of the kits

CMSD teachers earn a free field experience to Cleveland Botanical Garden

and up to 12 hours of professional development

- Learn about plant parts and their structures
- Analyze soil structure
- Earn a free field experience to Cleveland Botanical Garden where student will be engaged in hands-on, plant-based learning
- Perform a percolation study
- Play with worms and learn about their life cycles
- Investigate proper plant care
- Work through lessons and activities to do with your students; which are aligned with the Ohio Science Content Standards
- **Take home a kit of materials, books and curriculum to use in your classroom worth over \$175**

**3 class sessions (9 contact hours) held at CBG and up to 3 hours of online extensions.**

Certificates for professional development hours will be given based on hours of participation (between 9-12)

Documentation for 12 professional development hours will be provided upon course completion

Light refreshments will be served

**July 21<sup>st</sup>, 22<sup>nd</sup>, 23<sup>rd</sup>, 2015**

**Class 9:15- 11:15**

**Optional guided tour 11:15-12:15**

**How to register:** Email the following information to <mailto:rcollins@cbgarden.org>

Name  
Grade  
School  
Home/cell #  
School #  
Home city



**PROFESSIONAL DEVELOPMENT, AND OTHER OPPORTUNITIES****The Holden Arboretum**

Mastin Summer Science Institute for Teachers

**Make and Take PBL:  
Water, Soil & Living Things  
in the Common Core**

July 14-16, 2015

8:30 am – 4:30 pm daily



Learn how to design a PBL (problem based lesson) that will interest you and your students, and incorporate many of the life science standards at your grade level. Spend three days working with content experts from The Holden Arboretum and The Lake County Soil and Water Conservation District and experienced classroom teachers who have implemented PBLs in their own classrooms. Learn the content and work through hands on inquiry activities to see first hand how these

experiences can cover subject matter and common core standards all at the same time. Experienced classroom teachers will walk you through some of their lessons and share with you what worked for them. Work with other teachers to develop your own lessons and leave with something to implement in your classroom next year.

Participants will build their own knowledge base and take part in activities and experiments that are appropriate for students in grades third through sixth. A large part of the class time will be spent in outdoor field studies to provide first-hand experiences with the science concepts being covered. What better place to learn first hand about water, soil and living things than at an arboretum that has over 3600 acres of natural space. Teachers will receive activity handouts as well as science reference materials and supplies for use in their classroom.



Cost: \$175 payable to The Holden Arboretum

Graduate Credit is available for an additional fee through Lake Erie College.

\$150 for one hour of graduate credit

\$300 for two hours of graduate credit

Contact Sharon Graper with questions.

[sgraper@holdenarb.org](mailto:sgraper@holdenarb.org)

440.602.3843



## PROFESSIONAL DEVELOPMENT, AND OTHER OPPORTUNITIES

Ohio Energy Project is offering professional development opportunities this summer for Ohio science teachers. Grade level workshops provide curriculum and a \$200 teaching kit for participating elementary teachers:

- 3<sup>rd</sup> Grade-Sources of Energy, State of Matter, Light & Heat
- 4<sup>th</sup> Grade-Electricity, Circuits & Thermal Energy
- 5<sup>th</sup> Grade-Light & Sound



The e3 Smart program (energy efficiency education) participants receive \$400 worth of classroom materials and a Home Efficiency Kit for every student. The e3 Smart program is open to grades 4-12.

Visit [www.ohioenergy.org](http://www.ohioenergy.org) for more information on all programs including dates, locations and online registration.



### UPCOMING SCIENCE EDUCATORS WORKSHOP

AVS has conducted a two-day in-service workshop on low-pressure experiments and modeling for middle and high school science teachers from the United States and Canada since 1990. Attendees are sponsored by regional Chapters of the Society with all expenses paid by the sponsoring Chapter. The workshop is accredited for CEU's and is aligned with the national science and mathematics standards.

The workshop is divided into two parts: (1) lectures on the underlying science and the mathematical calculations and (2) hands-on experience in which a group of teachers perform experiments and develop models under the guidance of an instructor team.

The next workshop will be held October 19-20, 2015 in San Jose, California during the AVS 62<sup>nd</sup> International Symposium & Equipment Exhibition. Interested teachers should submit an [on-line application](#). **The deadline for submission is August 21, 2015.**



### The Learning Design Group

The Lawrence Hall of Science is a recognized leader in pre-K–12 science and mathematics education. Our efforts range from educational research to curriculum development, hands-on investigations to multimedia interactive tools. We produce challenging and fun learning experiences—always research-based, and always rigorously tested for effectiveness.

The Learning Design Group at the Lawrence Hall of Science is currently recruiting science teachers to participate in their 2015-2016 Elementary and Middle School Field Trials. If you are interested, please read more about the field trials for Elementary School Science at [http://learningdesigngroup.org/sites/default/files/resources/files/AmplifyScience\\_FieldTrial\\_Elementary.pdf](http://learningdesigngroup.org/sites/default/files/resources/files/AmplifyScience_FieldTrial_Elementary.pdf) and for Middle School Science at [http://learningdesigngroup.org/sites/default/files/resources/files/AmplifyScience\\_FieldTrial\\_MS.pdf](http://learningdesigngroup.org/sites/default/files/resources/files/AmplifyScience_FieldTrial_MS.pdf)

# PROFESSIONAL DEVELOPMENT, AND OTHER OPPORTUNITIES



Cincinnati Chapter



## MATERIALS CAMP®

ASM MATERIALS EDUCATION FOUNDATION

## Calling All Teachers!

Attend a one-week professional development workshop this summer – at no cost to you!

Princeton High School | Cincinnati, OH | July 20-24, 2015



*"This was one of the best camps I have ever attended. The labs provided me the experience to be able to conduct them in my classroom. The depth of the program gave me the experience and knowledge to better understand and explain the ideas to my students."*

Teachers Camp 2014

ASM Materials Camps give you something you could really use in your classroom!

### Who should attend?

- High school general science, chemistry, physics, math, technology, vocational, team cross-curricular teachers
- Middle school physical science teachers

### Why attend?

- Learn how to engage your students using simple, low-cost experiments that you can integrate into your existing lesson plans
- Help your students discover career opportunities in science and engineering

**Everything is FREE:** 4 CEUs, materials, lunches & snacks

**Graduate credits available!** Two (2) graduate credits available (at participant's expense) through the University of Missouri-Kansas City at \$250. (This is optional.)

**How to apply:** Go to link: <https://www.surveymonkey.com/s/JL5TPQR> or visit [www.asmfoundation.org](http://www.asmfoundation.org).

### Questions?

For additional information, contact  
Jeane Deatherage, Administrator of Foundation Programs at  
[jeane.deatherage@asminternational.org](mailto:jeane.deatherage@asminternational.org); 1-800-336-5152, X5533.

This workshop is made possible by the generous financial support of:

**TOYOTA**



National Corporate Partner



imagination at work

## PROFESSIONAL DEVELOPMENT, AND OTHER OPPORTUNITIES

The National Congress on Science Education (NCSE) meets annually and consists of one voting delegate from each of the 94 NSTA Chapters and Associated Groups. The Congress meets to discuss issues and bring forth recommendations that may be of interest to NSTA and the science education community. Delegates and other local leaders benefit from attending the summer congress, which provides opportunities to

- Network with other science leaders from the US and Canada;
- Attend leadership workshops to assist them in their association role;
- Represent their members as a voting delegate;
- Attend focus groups to address national issues and formulate debate and adopt resolutions;
- Meet and work with the NSTA elected leaders and staff.



The 2015 National Congress on Science Education (NCSE) on July 15-18, 2015 is in Omaha, Nebraska. The theme is “Engineering the Next Generation of Science Leaders 2015.” See <http://www.nsta.org/about/collaboration/congress.aspx> for details.

**iDiscovery** creates Web-based Professional Development communities that support Ohio educators as they implement systemic reform-based curricula and instruction that is aligned with Ohio’s New Learning Standards for Mathematics and Science

**iDiscovery** started in 2002 as a collaborative effort of the Discovery Center and Project Dragonfly at Miami University. This Web-based initiative was originally designed to support **iDiscovery’s** face-to-face professional development workshops and institutes by providing follow-on support for professionals as they implemented inquiry-based and problem-solving-based instructional programs.



### Fall 2015 Semester iDiscovery Online Seminar Courses are Available.

**iDiscovery:** Implementing Ohio’s New Learning Standards for Mathematical Practice 1 15-16 EDT 699L

**iDiscovery:** Implementing Ohio’s New Learning Standards for Science Vision into Practice 1 15-16 EDT 699N

**Participants earn two Miami University tuition-waived graduate credits each semester.**

There is a \$150 nonrefundable course administration fee at time of registration for each course.

Visit: **The iDiscovery Website**, <https://www.idiscovery.org>, for additional information.

### Professional Development from Harvard University

The 3-day Summer Institute from the Personal Genetics Education Project, housed at Harvard Medical School. We create interactive and engaging lesson plans for high school science, social studies, biotechnology, and health teachers about social and ethical issues related to personal genetics. Our summer institute provides teachers the opportunity to discuss the ethical, legal, and social questions that arise with cutting-edge genetic technologies, and delve deeply into our curriculum. The link to register is <https://docs.google.com/forms/d/1ZDTyFhB4jinvihGia9qsoDlnusJvyO3bN9dfllztMw/viewform>. See <http://www.pged.org/> for additional information.



**July 28-30, 2015 9:00am - 3:30pm**

Harvard Medical School  
New Research Building  
77 Avenue Louis Pasteur  
Boston, MA 02115



## TEACHER RESOURCES

At the **Buck Institute for Education (BIE)**, our highest priority is to help teachers prepare students for successful lives. We do this by showing teachers how to use **Project Based Learning** in all grade levels and subject areas. As a mission-driven nonprofit organization, BIE creates, gathers, and shares high-quality PBL instructional practices and products and provides highly effective services to teachers, schools, and districts.

For teachers, BIE offers professional development on how to design, assess, and manage projects that engage and motivate students. For schools, BIE helps bring coherence to PBL practices across grade levels and subject areas, and supports the creation of school-wide processes and structures to support PBL. For districts, BIE offers unrivaled service and expertise in creating and sustaining district-wide PBL initiatives. The exponential increase in demand for its services and products speak to BIE's ability to help educators around the world provide a better education for all students.

For general information about BIE go to <http://bie.org/>

For information about *Gold Standard PBL: Project Based Teaching Practices* (Adapted from [Setting the Standard for Project Based Learning: A Proven Approach to Rigorous Classroom Instruction](#), by John Larmer, John Mergendoller, Suzie Boss (ASCD 2015), go to [http://bie.org/blog/gold\\_standard\\_pbl\\_essential\\_project\\_design\\_elements](http://bie.org/blog/gold_standard_pbl_essential_project_design_elements)

---

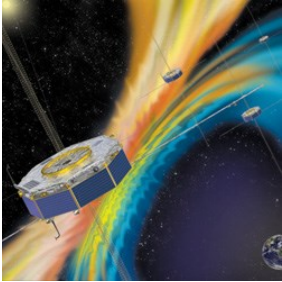
Happy birthday, Hubble! Hubble just passed its 25th anniversary milestone.

There is a great site for information: <http://hubble25th.org/>



Goodbye, Messenger! After four years in orbit, Messenger has completed its mission. The data analysis will continue, so we will look for more results from this path-breaking mission. After 58 years of space research, we have only orbited or landed on 6 of the 8 planets (and several moons and a couple of asteroids)... Uranus and Neptune were only flybys, and the upcoming flyby of Pluto this summer will complete the "traditional" nine planets. (But of course, poor Pluto was demoted to dwarf planet status).

## **TEACHER RESOURCES**



**Magnetospheric Multiscale (MMS) Mission** will use a four-spacecraft suite to study reconnection, the most important process in the Earth's magnetosphere and in astrophysical objects such as solar flares. Rice Space Institute will be leading the EPO for this mission. For information visit: <http://mms.rice.edu/mms/index.php> and <http://mms.gsfc.nasa.gov/index.html>.



CBG offers a variety of **Teacher Resource Kits** that supplement classroom learning. Kits are created using the Ohio Academic Science Content Standards and are available to members at no charge. Each kit may be borrowed for three weeks. To reserve a kit contact Rowenna Collins at [rcollins@cbgarden.org](mailto:rcollins@cbgarden.org) or call 216/707-2831.



---

### **Do You Want to Attend 2016 NSTA National Conference in Nashville, Tenn.?**

#### **CRCST Can Help**

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 2016 NSTA National Conference will be in Nashville, Tennessee from March 28 - April 1, 2016. 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, 2016 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](http://www.nsta.org). The application for the grant will be found later in the newsletter.

## TEACHER RESOURCES



### 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](http://www.crcst.org)> and NSTA <[www.nsta.org](http://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 ([suzieclay@aol.com](mailto:suzieclay@aol.com)) prior to the deadline of January 15, 2016 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.
  - 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: \_\_\_\_\_

\_\_\_\_\_ ZIP \_\_\_\_\_

NSTA membership number: \_\_\_\_\_ CRCST membership expiration date: \_\_\_\_\_

Grade(s) Currently Teaching: \_\_\_\_\_ Years of Teaching: \_\_\_\_\_

Principal's Name: \_\_\_\_\_ School Phone: (\_\_\_\_) \_\_\_\_\_

### Looking for Science Leaders

At the October Fall Conference, CRCST will hold election for members of the 2015-2017 Board positions. The term of office is for two years. The Board meets on the first Wednesday each month (except June, July, August) around 5:30 PM. This year we are looking for **members** to fill the following positions: President-Elect, Secretary, Treasurer (2015-2016 term completion), 2 representatives from the CMSD, 2 representatives from public school, and 1 representative from private schools. If you are interested, please contact Susan Clay at [suzieclay@aol.com](mailto:suzieclay@aol.com) or call 440-570-1155. This is your chance to help guide CRCST into the future and remain a strong organization. Your opinions matter to the Board.



#### 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](http://www.crcst.org)

[https://www.facebook.com/pages/CRCST-Cleveland-Regional-Council-of-Science-Teachers/75692664533?ref\\_type=bookmark](https://www.facebook.com/pages/CRCST-Cleveland-Regional-Council-of-Science-Teachers/75692664533?ref_type=bookmark)