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# The MAST E-Rapper

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9.28.09

October Conference Prep

## Editor's Note

See What You Can Make Of It! Our colleague, Noah Scholl, has shared his first time conference experience and closed with this recommendation to all of us as we consider coming together in a few weeks. I like this sentiment a lot! Whether we have 2 or 20 years of teaching experience there is something to be gained and shared on October 16<sup>th</sup> at South Carroll High School.

Here it is, September 28<sup>th</sup>. Many of us have committed to attending and may have even taken the step of printing the registration form. We put it in a safe spot with other paperwork. There's plenty of time to send it in. The pre-registration deadline is October 9<sup>th</sup> and it's only September. Lots of time! Well, no, not really. October 1<sup>st</sup> is Thursday!! In CCPS, we just finished submitting interim grades. Time is flying.

I confess. I just mailed my registration in yesterday. As I prepared to put together this issue of the e-Rapper, it occurred to me that it would not be prudent to wait any longer. A few of you have corresponded with me about the meeting and I'm looking forward to meeting you in person. It wouldn't do to be late with my registration.

If you are still on the proverbial fence or haven't had a chance to think about anything much aside from lessons and labs and grade reports, well, take a minute (literally, take 1 minute) and look at the line up for this conference. It's an impressive list of presenters and exhibitors.

Afterwards, print off the registration form and mail it in right away!

You might consider printing 3 copies so you can help your colleagues who have been meaning to print theirs. Post it in your faculty office. Be the maven of your department! If at least 3 of you attend, you'll be able to see more of the conference and share it with each other. It's also nice to have carpool buddies!!

If you are STILL not sure about coming, it's okay. That is your careful science mind at its finest. Jump in! Send in your registration. See What YOU Can Make Of It!

See you there,

*Donna*

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## **Access to Excellence: Program for Fall Conference Takes Shape!**

As the final arrangements are being made, The Maryland Association of Science Teachers is excited to share the preliminary list of program presenters and exhibitors for our 2009 Fall Conference- Access to Excellence. Always trying to find the best bang for the buck, science teachers in Maryland seek experiences that provide them with multiple opportunities to gain professional knowledge. It is with great thrill that MAST presents their preliminary program- *you won't want to miss this one!* Come share in a day of networking, professional development, socializing and fun with science colleagues from around the state.

Hosted at South Carroll High School, the schedule for this year's Fall Conference will begin with Registration at 8:30 followed by Opening remarks at 9:00 with a special guest from the state discussing the recent Children in Nature Legislation. MAST will also proudly recognize this year's MAST Excellence in Science Teaching Awardees.

Three Sessions of Presentations will occur at 10:00, 11:00 and 1:00 with a walk-about luncheon that will include sharing of programs and teacher resources from several local science vendors as well as non-profit organizations.

Focusing on the three strands, Environmental Education, STEM Education and 21<sup>st</sup> Century Skills in the Science Classroom, science teachers and science organizations from across the state are volunteering to share their favorite opportunities, activities and lessons with conference attendees.

***Come join MAST and your colleagues for a fabulous opportunity to gather information about current science resources available so you can be one of the best!***

Take a look at this outline of exhibitors and presenters!

### **At-a-glance Plan for Excellence!!**

#### **Presenters and Exhibitors**

- ✓ Maryland Zoo
- ✓ Maryland Science Center
- ✓ MDBio
- ✓ The National Aquarium in Baltimore
- ✓ CPO Physics
- ✓ Vernier and LabQuest
- ✓ Smart Board Technology

- ✓ J. Craig Venter Institute on Genomics

### **Environmental Education**

- ✓ Reliable Web Tools for Human Health and Toxicology from NIH
- ✓ Orientation to the National Aquarium Fieldtrip program
- ✓ Using GIS in the science classroom and outdoors
- ✓ The New Nitrogen Cycle-Research at the Center of Marine Biotechnology
- ✓ Global Connections-Forests of the Wild from Project Learning Tree- Towson State
- ✓ Schoolyard Habitat, and the Green School Application process by MAEOE

### **STEM Education**

- ✓ NIST's Summer Institute
- ✓ Forensic Spectroscopy
- ✓ Project Based Inquiry
- ✓ STEM Career Development in the Middle School
- ✓ Science Homework- A Family Event
- ✓ Radiation Safety, Science for Women in Corporate America
- ✓ STEM Education for Elementary Schools

### **21<sup>st</sup> Century Skills**

- ✓ Using an Online Course Management System to challenge your students
- ✓ Using Demos for Engagement in the Science Classroom
- ✓ Presto! Open Inquiry
- ✓ Help! Why can't they pass the test?!
- ✓ Computational Science: Another Step of the Scientific Method

For more information, check out our website at [www.emast.org](http://www.emast.org)! Hope to see you there! Bring Colleagues!

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## Why Attend Conferences?

By: Noah Scholl



As a second year teacher beginning another school year one's thoughts are largely of the daunting year ahead. How can I perfect my lessons, what changes can I make to the classroom environment and what will make me a more effective teacher are all questions that need to be addressed. That said as a young teacher one has enough worries let alone thinking about professional conferences on your precious free time. I suppose that wasn't exactly my attitude but it would be fair to say that the idea of attending a conference was both intimidating and exciting.

Last October I attended the M.A.S.T. conference at Ocean City which promised to be a day filled with new teaching strategies, professional networking and even some laughs with new friends. As the day started, fate would have it that I sat unknowingly next to a representative from MSDE as well as two science supervisors from neighboring counties.

What an opportunity, a second year teacher dialoging with an MSDE representative about what I was trying to accomplish within my classroom. Along with others at the table we

had some great conversations about classroom strategies, what students are working on and even had some laughs about silly things past students had done. As the day rolled on I continued to meet many new people and picked up on several new strategies that I would like to implement in my own room, however, nothing could have prepared me for what happened next.

The conference was almost at a close and I was quietly sitting eating my lunch and packing up some odds and ends when I was approached by two gentlemen. They began describing a team of summer teachers that work together to develop creative hands on learning for informal education programs using the *Theory of Multiple Intelligences* and *Teaching for Understanding* framework. They were describing a company that they created named *Educator Connecting Research to the k-12 Classroom*. As I learned more they began to discuss the relationship they have developed with local county Parks and Recreation as well as the Smithsonian Associates. Ultimately they wanted me to take part in some of the camps they offered over the summer. I couldn't believe it! It was only October and I had already lined up a summer job that promised to be an opportunity I wouldn't soon forget. As the conversation closed all I could think about was the opportunity to teach hands on science at the Smithsonian as part of their summer camp program, not to mention the connections

that I would make with my summer co-workers.

I suppose my initial hesitations about attending a conference were not all that uncommon. It would be true that conferences do in fact occupy some of your free time and may even be inconvenient. However, they provide both a positive forum to grow professionally as well

as the opportunity to network with others from across the state both within your discipline and across the curriculum. I once had a college professor whom constantly quoted, “Your experience is only what you make of it”; I think the same can be said for conferences. So, next time you have a chance to attend a conference, see what you can make of it.

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# Announcements

## MAST and NSTA Seeks Presenters for Regional NSTA Conference in Baltimore 2010

The National Science Teachers Association in conjunction with the Maryland Association of Science Teachers has announced the opening for proposals to present at our upcoming regional conference. The NSTA will hold its 2010 Regional Conference at the Baltimore Convention Center in November of 2010.

Committees are forming to assist the NSTA in putting together an outstanding conference for Science Teachers. This upcoming conference will center on the theme “**Charting the Course to Excellence**”. In September through January NSTA will be open for receiving proposals from local teachers to present at this conference. There will be approximately 300 presentations for attending teachers to select. NSTA and MAST would like to encourage you to make a presentation at this conference so you can share your favorite lessons, activities, and/or teaching experiences with others.

MAST and NSTA have identified three strands for professional development emphasis. We would like to encourage you to use this opportunity to present to fellow science teachers as a way to enhance your resume, share your expertise and contribute to the professional development of our regional science teachers. When you submit your proposal, please indicate the strand in which you wish to be included. The following lists the strands and goals for each. Please also note that it is not necessary to present in a particular strand. Proposals will be accepted at [www.nsta.org](http://www.nsta.org) under the Conferences and Institutes Tab.

### **Strand One: Teaching Science in the 21<sup>st</sup>-Century Classroom**

Today’s student learns differently. The 21<sup>st</sup>-century student deserves and demands an interactive and student-centric approach to learning. This presents many challenges to educators, including meeting the needs of students with diverse learning styles such as English language learners, special needs students, and advanced and below-grade-level readers. The effective science teacher uses innovative, research-based instructional strategies to facilitate achievement in science for *all* students. Differentiation, universal design for learning, project-based learning, and brain-based learning are just a few of these strategies. This strand will increase participants' knowledge of and expertise in the integration of these and other innovative pedagogies for helping students attain high standards.

**Goals:** To provide workshops and presentations focusing on one or more of the following:

- Differentiation and culturally responsive teaching in science classrooms.
- Effectively integrating cutting-edge technology to enhance student learning and support science teacher professional development.

- Teaching practices such as universal design for learning, response to intervention (RTI), or multiple intelligences.
- Implementing cognitive science to enhance learning.
- Inquiry-based instruction and its impact on student learning.

**Criteria:** Proposals will be evaluated on the extent that they:

- Promote the use of teaching strategies to match the learning styles of today’s learners.
- Provide evidence of effective use of innovative teaching strategies.
- Share examples of effective learning/achievement in “21<sup>st</sup>-century” learners.
- Align with one or more strand goals.
- Align with state and national science education standards (NSES and Benchmarks).
- Are based on current and available research and issues in science.
- Involve participants through activities and/or discussion.

**Strand Two: Embracing the World from Our Own Backyard: Environmental Education**

Our environment is threatened, and science educators are a powerful tool for change. Once empowered, our students will be key to achieving this change. In this increasingly interconnected global community, all members must understand the implications of our choices and the impact we can have both globally and locally. This strand will increase participants’ knowledge of effective practices to help students understand, appreciate, protect, and restore our natural environment.

**Goals:** To provide workshops and presentations focusing on one or more of the following:

- Implementing outdoor science experiences and programs that connect children with nature (e.g., No Child Left Inside, Children in Nature).
- Empowering environmental actions, including service learning, and environmental education activities.
- Becoming a certified Green School.
- Exploring the science of green technologies such as recycling, alternative energy resources and energy conservation, and green building techniques.
- Using 21<sup>st</sup>-century skills to protect local ecosystems, such as water monitoring, invasive species eradication, restoration projects, riparian buffers, runoff prevention, and GIS mapping.

**Criteria:** Proposals will be evaluated on the extent that they:

- Focus on student-centered learning opportunities.
- Model successful strategies for incorporating the local ecosystem into instruction.
- Align with one or more strand goals.
- Align with state and national science education standards (NSES and Benchmarks).
- Are based on current and available research and issues in science.
- Involve participants through activities and/or discussion.

**Strand Three: Building Tomorrow’s Workforce: Science, Technology, Engineering, and Mathematics (STEM)**

Imagination, invention, and creativity drive development in our world. In preparing today's students to be tomorrow's workforce we must prepare them for all jobs, even some that do not yet exist. Educators must help guide students into careers in science, technology, engineering, and mathematics. This strand will highlight classroom practices that emphasize skills in critical thinking, leadership, problem solving, collaboration, communication, media, and technology in the transdisciplinary context of STEM.

**Goals:** To provide workshops and presentations focusing on one or more of the following:

- Real-life applications of STEM activities that encourage preK–16 students to think like scientists and engineers.
- Using problem solving, innovation, and imagination for development of products and applications.
- Using authentic hands-on/minds-on activities where students work as teams to design, construct, and analyze.
- Giving teachers the tools to integrate aspects of engineering and technology into everyday activities and discussions.
- Providing teachers with information on cultivating and sustaining nurturing, meaningful partnerships within their communities.

**Criteria:** Proposals will be evaluated on the extent that they:

- Integrate a STEM focus within the current curriculum.
- Provide student opportunities for collaboration and 21<sup>st</sup>-century skills development.
- Demonstrate effective application of appropriate technologies.
- Align with one or more strand goals.
- Align state and national science education standards (NSES and Benchmarks).
- Are based on current and available research and issues in science.
- Involve participants through activities and/or discussion.

Please feel free to contact Elizabeth McCook at [elizabethmccook@emast.org](mailto:elizabethmccook@emast.org), Program Chairperson for the NSTA Baltimore 2010 Conference if you have further questions in regard to your proposal. All submissions of proposals will go to the NSTA Office. If you wish to assist the Maryland Association of Science Teachers in working with NSTA on the development of this conference you may also contact her or Conference Chairperson, Mary Weller at [mcwelle@carrollk12.org](mailto:mcwelle@carrollk12.org)

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# Maryland Association of Science Teachers

## MEMBERSHIP FORM

**Welcome to MAST! Please print, complete, and mail this form to the address below.**

**Type of Membership – Please check one space in each column.**

- |  |                                  |
|--|----------------------------------|
| <input type="checkbox"/> 1 year – \$15.00          | <input type="checkbox"/> New     |
| <input type="checkbox"/> 3 year – \$40.00          | <input type="checkbox"/> Renewal |
| <input type="checkbox"/> Student – \$5.00 (1 year) |                                  |

**Member Information – Please fill this out completely!**

|                     |            |                         |            |   |
|---------------------|------------|-------------------------|------------|---|
| Last Name           |            | First Name              |            | Level – please check all that apply:<br><br><input type="checkbox"/> Pre-K<br><input type="checkbox"/> Elementary<br><input type="checkbox"/> Student<br><input type="checkbox"/> Supervisory<br><input type="checkbox"/> Middle/Jr. High<br><input type="checkbox"/> High School<br><input type="checkbox"/> College/University<br><input type="checkbox"/> Organization (please specify)<br><br><input type="checkbox"/> Other (please specify) |
| Street Address      |            |                         |            |   |
| City                |            | State                   | Zip        |   |
| Local School System |            | School                  |            |   |
| Home Phone          | Work Phone |                         | Cell Phone |   |
| Email Address       |            | Alternate Email Address |            |   |

I would like to donate \$ \_\_\_\_\_ to support:  
 the MAST Awards for Excellence in Science Education Program  
 the MAST Mini-Grants Program

Please make your check payable to the Maryland Association of Science Teachers (MAST) and send it with this completed application to:

MAST  
 P.O. Box 368  
 Finksburg, MD 21048

For Office Use: Date Received \_\_\_\_\_ Amt Paid \_\_\_\_\_ Membership to: \_\_\_\_\_

Cash \_\_\_\_\_ Check Number \_\_\_\_\_ Check date \_\_\_\_\_

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