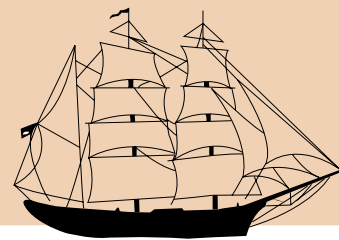


MASTHEAD

MASSACHUSETTS ASSOCIATION OF SCIENCE TEACHERS

State Chapter of the National Science Teachers Association Vol. 38 No. 2 December 2010



MAST

From the President

Lynn Gatchell

Happy Holidays Everyone!

The fall conference was very successful this year. We had over 200 attendees each day and almost 60 exhibitors. Positive comments

came from both the exhibitors and attendees, some of them being first timers. Attendees appeared to enjoy themselves and some are even considering presenting in the future. The hall buzz was on how wonderful the workshops were and there were those who wished they were just a little longer. I would like to thank everyone who worked all year to make the conference a success. Look for photographs in this newsletter and on our web site. You might find yourself.



Please join me in congratulating all of the individuals honored at our Awards Banquet. *The David Bryon Award* is annually presented, by the president, to an individual who goes above and beyond what is expected in service to the organization. This year the award was presented by outgoing president Linde Eyster to **Bruce Sather**. *The Russell Stanhope Distinguished Friend of Science Award* was given to **Captain David Weinstein**. **Heidi Scaltreto** received the *Dawn Sather Exemplary New Teacher Award*. **Naomi Volain** and **Betsey Willis** were the winners of the *Elaine Adams Awards*. *The State Award for Science Educator of the Year* went to **Kenneth Brody**. Our county awards were presented to **Charles Bresnahan** for Bristol County, **Dr. Mary Hatton** for Essex County, **Caroline Goode** for Middlesex County, **Betsey Willis** for Norfolk County, **Alison Riordan** for Plymouth County, **Ann McGovern** for Suffolk County and **Judith Cournoyer** for Worcester County. In addition to our MAST awards we also honored this year's finalist for the *Presidential Award for Excellence in Science* and the National Association of Biology Teachers *Outstanding Biology Teacher of the Year*. **Gwen Shipley** received the OBTA award and the Presidential

Finalist was **Wai Chin Ng**. Finally we also recognized **Dr. Linde Eyster**, **Malcolm Fraser** and **Mark Greenman** for their induction into the *Massachusetts Hall of Fame for Science Educators*. Congratulations to all of these deserving individuals.

During the conference we held our annual meeting and elections. I assumed the role of President and I will be supported by a very dedicated executive board consisting of **Betsey Willis** (President-Elect), **Mary Liscombe** (Vice President), **Tree Goulet** (Secretary), **Caryl LaPorte** (Treasurer), and **Linde Eyster** (Past President). I will be joined by the enthusiastic and dedicated board members representing the counties of Massachusetts. Welcome to all, and I look forward to serving the organization in this role.

The conference success is the result of the hard work and commitment of the Executive Board, **Joann Blum** (Registrar), **Lou Palanzi-Ricker** and **Marilyn Richardson** (Hospitality Chairs), **Sr. Kathy Livingston** (Membership), **Don Donovan** (Website), **Gary Mazzola** (Awards Chair), **Mary Hatton** (Professional Development Chair), and the generous team of volunteers from the MAST board who helped work at the registration and MAST tables. **Michael Daigle** expertly organized the non-profit exhibitors. **Pat Harcourt** and **Betsey Willis** did an outstanding job, organizing all the workshops and presenters. We can't thank the presenters enough for their time and expertise they shared with teachers from across the state. We are indebted to our commercial sponsors who provided generous support: **CPO**, **Delta Education**, **Frey Scientific**, **Prentice-Hall** and **Apperson**. Finally, we would like to thank the exhibitors who donated door prizes for the great, end of conference MAST-Merriment give-away.

If you attended the MAST Conference 2010, we hope you will return next year with a few colleagues to take advantage of this annual and local professional development event. If you were not able to attend this year, we hope you will be able to attend next year. Remember to renew your membership if you did not attend. Next year's conference is set for **November 17-18, 2011**. Tell everyone to save the date!

The MASTHEAD is published by the Massachusetts Association of Science Teachers. Members receive four issues per year in September, December, March and June. The MASTHEAD is published for those interested in the advancement of science education. This publication provides information about science activities, and opportunities around the state and the nation, as well as sources for materials for science teachers. An additional feature includes a calendar of events related to science education as well as ecology, and the environment. It also serves as a forum for ideas and classroom strategies.

The staff of the MASTHEAD and the Board of Directors of MAST assume no responsibility in the case of injury or loss by persons using any information material in this publication.

Editor: Tom Hocker

e-mail: whaleboy@comcast.net

Tel. 617-290-9989

Editorial Staff Joann Blum

17 Edson Ave, Rutland MA 01543

Subscriptions: Regular: \$20.00, Foreign: \$20.00

Write: MASTHEAD

127 Malvern Road

Worcester MA 01610

Membership: Regular: \$20.00, Foreign: \$20.00, Student: \$5.00.

Write: Warren Phillips, Membership Chair

314 Elm St

Halifax MA 02338

e-mail: a1science@yahoo.com, phone 781-293-6703

Donations: Gifts and donations will be accepted for the advancement of science education.

Advertisers: If you are interested in advertising in the MASTHEAD, contact one of the editors. We accept copy ready ads or business cards four weeks preceding the first of the month of publication. Space available basis only. Check our web site for rates at www.MassScienceTeach.org/ads.html

Submissions: Material to be published in the MASTHEAD must be submitted to the editors one month before the publication date.

DEADLINES: August 1 for the Fall Issue, November 1st for the Winter issue, February 1 for the Spring Issue and May 1 for the Summer issue.

MAST Committee Chairs and Positions

Standing Committees

Awards Chair	Dr. Gary Mazzola	508-873-7805
Website Content Chair	Don Donovan	508-339-1694
Budget/Finance	Joann Blum	
Elections	William McSweeney	
Membership	Warren Phillips	781-293-6703
Professional Development	Mary Hatton	978-821-5297
Publications	Tom Hocker	617-290-9989
2011 Conference Chairperson	Betsey Willis	413-522-3027
2011 Conference Presenter Chairperson	Mary Liscomb	508-533-8633

Corrections: Please email any corrections or changes to whaleboy@comcast.net.

Please consider volunteering for a committee either as a chair or as one of the committee members. Thank you!

MAST BOARD

Executive Board

President	Lynn Gatchell	508-693-0974
Pres-Elect	Betsey Willis	413-522-3027
Vice-Pres	Mary Liscomb	508-533-9633
Secretary	Therese Goulet	508-867-4268
Treasurer	Caryl Adamowitch-LaPorte	978-345-0413

County Directors

Barnstable	Charlie Bresnahan
Berkshire	Mark Hungate
Bristol	Dr. Gary F. Mazzola, Jessica Sanchez
Dukes/Nantucket	Connie Alexander
Essex	Pat Adams, Mary Hatton
Franklin	(1 Vacant)
Hampden	(2 Vacant)
Hampshire	Jenna Farrell
Middlesex	Christy Kervis, Bradd Smithson, Carol Shestok, Nancy Bremer, Joyce Croce*, (2 Vacant)
Norfolk	Brian Cassie, Betsey Willis, Steve Cremer*, Mary Young*
Plymouth	Warren Phillips, Jim Spinale*, Aimee Shannah, Maureen Moir*
Suffolk	Stephanie Selznick, (1 Vacant)
Worcester	Michele Daigle, Duke Dawson, Judith Cournoyer, William McSweeney*, Len Pacek*

* Director Emeritus

Past Presidents

Linde Eyster	2008-2010
Marilyn Richardson	2004-2008
Louise Palanzi	2002-2004
Kathy Vivolo	2000-2002
Joann Blum	1998-2000
Joyce Gleason	1996-1998
Roland Stern	1994-1996
John Kania	1992-1994
John Gow	1990-1992
Ron Wilmot	1988-1990
Sister Kathy Livingstone	1985-1988
Lois Durso	1984-1985
Joreen Piotroeski Hendry	1983-1984
Robert Krikorian	1982-1983
Carolyn McClure	1981-1982
William Horner	1980-1981
Wayne Allen	1979-1980
Russell Stanhope	1978-1979
Chet Corkum	1977-1978
David Byron	1976-1977
Doris Barber	1975-1976
Harold Chapman	1974-1975
William Hardin	1973-1974

MAST

MASSACHUSETTS ASSOCIATION OF SCIENCE TEACHERS

PO BOX 771

WORCESTER, MA, 01613-0771

www.MassScienceTeach.org



Printed on recycled paper.

Professional Opportunities Learning and Funding

An invitation to a science/social science collaborative effort

Climate change education for New England

Climate change is one of the most important areas of scientific research and social concern in our times. Yet education about climate change has fallen far short of what is needed for the public to make informed decisions. The issue seems far off, impersonal, and of little relevance to our daily lives. Furthermore, the social science dimensions of climate are often not well articulated, so that the human implications — both risks and opportunities — of rapid global climate change are not well understood.

TERC, Inc. is a local nonprofit institute dedicated to research and development in science and mathematics education (www.terc.edu). TERC has developed educational materials relating to climate change, ecology, and biocomplexity since 1989. Our Center for School Reform has recently launched a new climate change education effort directed by Dr. Brian Drayton and Dr. Gilly Puttick.

We can bring climate change into sharper focus by engaging people through the use of biological and cultural indicators of change as the basis for understanding the processes now under way and through implications for our communities over coming decades.

We are currently building a community of science and social science educators, media, and researchers in our region, in order to coordinate resources and expertise, and to collaborate on new work, in a regional effort to reach students, teachers, and the general public.

We know that there are local science educators who have been thinking about these issues as well. We are eager to hear your ideas, and collaborate with you. Please accept our invitation to join us in collaborating on this topic. If this topic interests you please contact us: brian_drayton@terc.edu.

SSP Fellows 2011 Application Opens on November 15!

Mark your calendars, the SSP Fellows 2011 application period will be open on November 15, 2010. This is your chance to be one of ten high school teachers competitively selected from across the country. The SSP Fellows program, with generous support from Intel, provides teachers financial and training resources to support and inspire the success of their most enthusiastic science students. SSP Fellows guide students to produce project-based research of the highest quality, such as is selected for SSP's premiere science competition, the Intel Science Talent Search.

The 2011 SSP Fellows Class will each receive \$8,500 which is renewable annually for up to four years, as well as training and resources to start a high quality scientific research program in their schools. Included in that training is a one week fully paid trip to attend the SSP Fellows Institute in Washington DC worth two graduate credits.

- See the application guidelines www.societyforscience.org/outreach/guidelines
- View a Mock application www.societyforscience.org/document.doc?id=123
- Read the FAQs www.societyforscience.org/outreach/faq
- Find resources for your class on Science News for Kids www.sciencenewsforkids.org
- Read about the 2009 and 2010 Fellows in the SSP Blog societyforscience.typepad.com/ssp/ssp-fellows
- Make sure to Apply on or after November 15!
Society for Science & the Public
1719 N Street, N.W.
Washington, DC 20036

UMass Nanotechnology 2011 Summer Institute

Nanotechnology deals with materials on the scale of nanometers. A nanometer is one-millionth of a millimeter, or about 10 atomic diameters. Such materials can have surprising and useful behaviors and properties. Applications of this rapidly growing field include regenerative medicine, fabrics and construction materials of unprecedented

[OPPORTUNITIES continued on page 20

A Celebration of Excellence in Science Education

MAST/MSELA Awards Banquet October 21, 2010

MAST and Massachusetts Science Education Leadership Association (MSELA) presented the following awards :

David Byron Award

Bruce Sather

Dawn Sather Exemplary New Teacher Award

Heidi Scaltreto

Russell P. Stanhope Distinguished Friend of Science Award

Captain David Weinstein

2010 County Awards

Barnstable– Charles Bresnahan

Essex – Dr. Mary Hatton

Middlesex – Caroline Goode

Norfolk – Betsy Willis

Plymouth – Alison Riordan

Suffolk – Ann McGovern

Worcester – Judith Cournoyer

2010 State Award

Kenneth Brody

Elaine Adams Award

Naomi Volain, Betsy Willis

Presidential Award for Excellence in Secondary Science Teaching

2010 Finalists

Wai Chin Ng

MSELA Outstanding Educator

Carol Bernon

National Association of Biology Teachers

Outstanding Biology Teacher of the Year Award

Gwen Shipley

Hall of Fame Inductees

Dr. Linde Eyster, Malcom Fraser, Mark Greenman

**We wish to express our gratitude of support for the event
graciously provided by Prentice Hall.**

MAST State Award



Kenneth Brody, long-time *Masthead* editor, receives his *Massachusetts Science Educator of the Year Award* from last year's recipient, Jeanette Spinale. At right is Gary Mazzola, chairman of the Awards Committee.

Russell Stanhope Distinguished Friend of Science



Captain David Weinstein

Captain David Weinstein embodies every positive aspect of the committed, informal educator. He founded and runs a company, Harbor Connections (now operating under the umbrella of Thompson Island Outward Bound and the National Parks Service) that has taken thousands of inner city elementary and middle school children to various Boston Harbor Islands to conduct science programs - for free. He writes grants and finds other sources of funding for the boats. He also works closely with US National Park Service Rangers to coordinate visits and develop new curricula relating to our local ecosystems. He takes more than two thousand Boston Public Schools students and nearly two thousand students from other, local systems every year!

Elaine Adams Professional Development Award



Elaine Adams Awardees Betsey Willis and Naomi Volain.

Naomi teaches Botany, Ecology, Advanced Placement Environmental Science and Biology at Springfield Central High School in Springfield, MA. She also coaches the Envirothon team, which competes in the state natural resource event. Naomi used her award to help fund a field course in measuring and monitoring biodiversity at El Eden Ecological Reserve in Cancun, Mexico. Naomi was awarded a check for \$1000 dollars to fund her venture.

Betsey teaches general science at the South Middle School in Braintree, MA. She is on the MEES Board and serves as the Clerk and Observer Coordinator. Betsey has served on the MAST Board as Franklin County Director, Norfolk County Director, and was recently appointed interim Vice President. Betsey used her award money to attend the Children's Environmental Literacy Foundation's Boston Summer Institute. She plans to incorporate hands-on activities and projects with her students including a classroom worm composting bin. Betsey was award a check for \$500 dollars to fund her venture.

We look forward to Naomi's and Betsey's presentations at next year's MAST Conference.

David H. Byron Award

Bruce Sather (*Masthead* production) congratulated by
MAST President Linde Eyster.



Exemplary New Teacher Award

Dawn Sather Exemplary New Teacher Award went to
Heidi Scaltreto pictured with presenters Bruce Sather,
Marilyn Richardson and Gary Mazzola.



County Awards



Charles Bresnahan, *Barnstable County Award.*



Dr. Mary Hatton, *Essex County Award.*



Caroline Goode, *Middlesex County Award.*



Betsey Willis, *Norfolk County Award.*



Alison Riordan, *Plymouth County Award.*



Ann McGovern, *Suffolk County Award.*



Judith Cournoyer, *Worcester County Award.*

Presidential Award Finalist



Wai Chin Ng

Outstanding Biology Teacher



Susan Plati (left) presents the *Outstanding Biology Teacher Award* to Gwen Shipley.

MSELA Outstanding Educator Award

Carol Bernon received the *MSELA Outstanding Educator Award* from MSELA Vice-President Wayne Adams.



***Support for the Awards Banquet was provided by
Prentice-Hall***

Awards Banquet Reception



Past Presidential Awardees



The Baton is Passed



Our new president Lynn Gatchell applies the golden pin of service to outgoing president Linde Eyster.

MAST would like to thank those who
sponsored events
at our conference

School Specialty Science
Apperson Education Products
Pearson Prentice Hall

as well as all the many exhibitors who
contributed to our MAST Merriment
Raffle

MAST/MSELA Fall Conference



Registration





Workshops





Exhibit Hall



MAST Madness Raffle



Opportunities

CONTINUED FROM PAGE 3

strength, ultra-high performance computers and data storage, more efficient solar photovoltaic cells, and much more. Activity in this field cuts across the traditional disciplinary boundaries, and involves chemistry, physics, biology, and engineering.

- Monday to Friday, July 11 - July 15 at UMass Amherst
- Funded by the National Science Foundation
- Sponsored by the STEM Education Institute and the Center for Hierarchical Manufacturing
- Middle and High School Science, Math, and Technology Teachers
- \$75/day stipends (\$375 total), materials, parking, lunches
- Housing (new air conditioned dorms) those outside the commuting radius
- 3 graduate credits available at reduced cost; free PDP's (Professional Development Points)
- Ongoing partnerships with UMass Faculty

The UMass Nanotechnology Summer Institute will explore the basic science and engineering concepts of this exciting new field, and will illustrate how they may be integrated into the usual math, science and technology courses in middle schools and high schools. The content and pedagogy will be aligned with the Massachusetts Science and Technology/Engineering Framework. During the institute, participants will begin to develop curriculum units for their own classes. They will complete and implement these in the fall and report on their progress and results online. Three graduate credits will be available for the institute and curriculum unit; the cost will be \$300 plus a \$45 registration fee. PDP's will be available at no cost.

Application process: An application form and additional information are available at www.umassk12.net/nano. Teachers should also prepare a narrative statement of how they intend to use the institute materials in their classroom, and include in their application package a recent resume and a letter of support from their school principal or superintendent. The application package can be submitted by email, fax, or US mail. Applications are due April 1, 2011. Late applications will be accepted on a space available basis

STEM Ed Institute:

www.umassk12.net/stem,
413-545-0734, fax: 413-545-3697

Center for Hierarchical Manufacturing:
www.umass.edu/chm

Earth and Space Science

A summer course for middle and high school teachers. **Taught at MIT.** Sponsored by the STEM Education Institute at UMass Amherst

- Monday to Friday, July 18 - 22, 2011 at MIT, Cambridge MA
- Funded by the National Science Foundation
- \$80/day stipend (\$400 total) and materials provided to each teacher
- 3 UMass Amherst graduate credits available at reduced cost; free PDP's

Earth and Space Science will develop an understanding of planetary accretion and evolution and the place of the Earth in the solar system, and explore methods of inquiry-based teaching.

- Making a planet: From elements to dust to planetesimals
- The history of life so far: Paleontology, climate, other planets, and the future
- Comparative planetology using maps
- Why there are volcanoes
- What is the lifetime of a planet?

Along the way we will cover pertinent topics in mathematics, including:

- Units and converting units
- Radioactive element half-lives
- Why do random events occur in clusters?
- Scientific notation and significant figures

Participants will develop curriculum units that will be presented to the class on the final day, uploaded to the course website, and piloted during the school year. This material will be available for other teachers to use (with the writer's permission) via a course website.

In the spring of 2011 course participants are expected to attend a one-day conference to present the results of implementing their units and to discuss and share further materials.

Three graduate credits are available for the class and curriculum unit; the cost will be \$300 plus a \$45 registration fee. PDP's will be available at no cost. Teachers will need to pay for parking.

Application process: Teachers should prepare a brief narrative statement of how they intend to use the institute materials in their classroom. They should also include in their application package a recent resume and a letter of support from their school principal or superintendent.

Please see our website for an application form:

serc.carleton.edu/spaceboston/index.html

For more information, contact Dr. Lindy Elkins-Tanton, MIT: ltelkins@mit.edu; 617-253-1902

UMass Stem Digital Summer Institute

STEM Digital Images in Geoscience Investigations: Teaching Analysis with Light (STEM DIGITAL)

- Monday to Friday, June 27 - July 1, 2011 at UMass Amherst
- Funded by the National Science Foundation
- Sponsored by the STEM Education Institute
- Middle and High School Science, Math, and Technology Teachers
- Teams of science and computer teachers encouraged
- Participants MUST bring a digital camera, and are encouraged to bring a laptop computer (see note at bottom of page)
- Stipends (\$375 summer, \$300 school year follow-up), materials, parking, lunches
- Housing and meals for those outside the commuting radius
- 3 to 6 graduate credits available at reduced cost; free PDP's (Professional Development Points)

STEM DIGITAL will show how digital image analysis can be applied to environmental quality issues in ways that can readily be introduced into STEM courses, engaging students and encouraging them to think about related careers. The project will develop research agendas that will employ a variety of image analysis tools. The air quality theme will focus on the three components of the atmosphere that primarily affect visible, infrared and ultraviolet light, respectively: particulates and aerosols, carbon dioxide, and ozone. The water quality theme will look at the role of plant biomass on drinking water quality and on global carbon cycling. Arsenic is listed as number one in the US in terms of environmental contaminants that pose a potential threat to human health; research topics will include the identification and mapping of local arsenic contaminated sites and bioremediation possibilities. STEM DIGITAL will use the Analyzing Digital Images software which provides free, easy-to-use tools for spatial, temporal, spectral, and intensity measurements.

During the school year, we will continue working with the teachers on approximately six projects spread over the fall and spring semesters. These will be a combination of new projects, extensions from summer projects, and data sharing projects. The timing and content of these projects will be largely decided by the teachers during the summer workshop to match their curriculum needs.

Three optional graduate credits will be available for the institute; the cost will be \$300 plus a \$45 registration fee. Another 3 credits will be available at \$345 for the academic year component. PDP's will be provided at no cost.

Application process: An application form and additional information are available at www.umassk12.net/digital. Teachers should prepare a narrative statement of how they intend to use the institute materials in their classroom, and include in their application package a recent resume and a

letter of support from their school principal or superintendent. The application package can be submitted by email, fax, or US mail. Applications are due April 1. Late applications will be accepted on a space available basis.

More information: www.umassk12.net/digital, email msilver@umassk12.net. Voice: 413-545-0734, fax: 413-545-3697

Frontiers In Physiology Professional Development Fellowship

Eligibility: Middle and high school science teachers
Themes: Explore Effective Teaching Strategies, Experience the Research Process, Enhance Your Classroom Materials
Dates: Fellowship year: April 2011 - April 2012

Online application due no later than: January 24, 2011.
Notifications: March 2011

Fellowship payments

- \$4,000 for a Summer Research Experience
- \$1,700 for completing assignments and a summer workshop week
- \$300 for a classroom materials grant
- Travel to San Diego, CA, April 21-25, 2012

Research Teacher Fellows Program

Middle and high school science teachers are invited to apply for a year-long \$9,000 professional development fellowship in the Frontiers in Physiology Program, Six Star Science for Student-Centered Learning, sponsored by the American Physiological Society (APS). Six Star Science principles support excellence in education: student-centered instruction, diversity/equity, technology, assessment, current scientific content, and reflecting on teaching and learning.

From April 2011 - April 2012, teacher fellows examine their current teaching methods and learning environments, and deepen their understanding of standards by applying Six Star Science methods to existing classroom materials. During the summer of 2011, teacher fellows partner with a local APS member scientist immersing themselves in the world of cutting-edge biomedical research for 7-8 weeks. Fellows also participate in a week-long professional development workshop, the Science Teaching Forum (July 2011). The fellowship concludes with a trip to a scientific conference in San Diego, California.

AWARDEES RECEIVE payments of up to \$5,700, travel costs, and a mini-grant for classroom materials. For more information go to: www.frontiersinphys.org. Application deadline: January 24, 2011.

EXPLORE Effective Teaching Strategies. The APS

Six Star Science framework for supporting excellence in science education:

- student-centered instruction
- valuing diversity among students
- integrating technology
- developing authentic assessments
- utilizing accurate and current content
- reflecting on teaching and learning

EXPERIENCE the Research Process.

Learn about: the scientific method; generating valid hypotheses; connecting basic to; clinical research; using animals and humans in research; research careers in physiology

ENHANCE Your Classroom Materials

Use toolkits of strategies and Six Star Science to: transform cookbook labs into engaging student-centered, inquiry-based lessons; align lessons to your state and national science education standards

Program Information And Application

www.frontiersinphys.org. Be sure to read and follow the "HOW TO APPLY" GUIDE document at the Research Teacher Fellows program website. DEADLINE: January 24, 2011.

Amgen Award for Science Teaching Excellence

Amgen is issuing a call for applications for the 2011 Amgen Award for Science Teaching Excellence (AASTE). The award is designed to recognize and honor extraordinary science teachers at the K-12 level in communities where Amgen operates, including Massachusetts. Last year, four (4) teachers from schools in Massachusetts were AASTE recipients.

The selected winners will receive the following benefits:

- An unrestricted cash award of \$5,000USD; and
- A restricted \$5,000USD cash grant to the recipient's school for the expansion or enhancement of a school science program, science resources, for the professional development of the school's science teachers.

Following is a link that will be accessible starting Nov. 16th containing information about the award, including criteria and the application process, on Amgen's website: www.amgen.com/citizenship/aaste.html

Deadline: February 11, 2011.

From the Institute of International Education

Toyota International Teacher Program to South Africa

We are very pleased to announce the inaugural Toyota International Teacher Program to South Africa! The program will take place July 24 - August 10, 2011. Full-time classroom teachers of all subjects and librarians, grades 7 - 12, are now invited to apply online. **The Toyota International Teacher Program is a fully-funded international** professional development program for U.S. educators. Funded by Toyota Motor Sales, U.S.A., Inc., and administered by the Institute of International Education, the program advances environmental stewardship and global connectedness in U.S. schools and communities.

The deadline to apply is January 23, 2011. The inaugural Toyota International Teacher Program to South Africa will provide teachers first-hand exposure to the social and environmental complexity of South Africa, focusing on sustainable development and emphasizing the links between history, culture, power, and the environment. Teachers will explore the country's natural and cultural diversity through a range of site visits and hands-on activities.

The Toyota International Teacher Program greatly values diversity and encourages educators of all backgrounds, subjects, and school types to apply for this unique professional development opportunity.

Teachers can visit our website at www.iie.org/toyota for application instructions, FAQs, and to apply online.

If you have any questions or would like more information, please do not hesitate to contact by email at toyotateach@iie.org or by phone at (toll-free) 877-832-2457.

Massachusetts Association of
Science Teachers
Box 871, Worcester MA 01613-0871
Address Service Requested

U.S. POSTAGE
PAID
NON-PROFIT
PERMIT #589
WORCESTER, MA

**Missed
This Year's
Conference?**
*Don't Let it Happen
Again! Plan now for
November 17-18, 2011!*



CALENDAR

Date	Activity
November 17-18 2011	MAST Fall Conference 2011