The 2017 ASTE International Conference will be held in Des Moines, Iowa from January 12-14. Conference Co-Chairs Joanne Olson and Jerrid Kruse will share all the details at the 2016 conference in Reno.
Dear ASTE Colleagues,

I hope you all had a good summer term (or vacation perhaps?) and are excitingly looking forward to the new academic year.

During the summer, we posted our call for papers and presentations at the 2016 Annual International ASTE conference being held on January 6-9, 2016. Our conference committee members and leadership are busily preparing for those events – so we hope to see you in Reno!

Additionally, we have been responsive to the legislative action regarding the Elementary and Secondary Education Act (No Child Left Behind, NCLB). ASTE leaders feel that the act is limiting and that improvements should be made. Please see the letter below (also found on www.theaste.org website).

I hope your school year is a great one and please remember to speak to other faculty at nearby colleges who may not have heard about ASTE. Invite them to a regional meeting (or the national one) and extend a welcome to them. As we’ve received word from our ASTE survey and town hall meetings that our association is known as the place that provides supportive mentorship and connection, let’s continue in that tradition and invite in new colleagues.

With warmest regards,

Lisa Martin-Hansen
June 9, 2015

The Honorable Lamar Alexander, Chairman of the Committee on Health, Education, Labor, and Pensions
United States Senate

The Honorable John Kline Chairman of the Education and the Workforce Committee
United States House of Representatives

Chairman Alexander and Chairman Kline:

As one of over 2000 signatories of the recent Open Letter to Congress and the Obama Administration from Educational Researchers Nationwide, the Association for Science Teacher Education (ASTE) fully supports moving away from an almost singular focus on test-driven reforms and towards policies and funding mechanisms that promote broad educational quality, provide targeted support for poverty-stricken schools and districts, and enhance the professionalism of our nation’s teachers.

We are hopeful that discussions among Congressional education leadership will continue to address our concerns about the deleterious effects of federal policies on education in general and, more specifically, on science education and related fields.

ASTE is dedicated to the education and ongoing professional development of all teachers engaged in the teaching of science and related STEM disciplines. Our organization’s efforts promote effective science teaching practices that lead to robust understanding of fundamental science ideas and practices which, ultimately, prepares students for science careers and informed citizenship. Policymakers and science educators agree on these goals and must work together on initiatives that promote them.

Based on decades of research and our interactions with scientists and science educators across the PK-16 spectrum, we agree with the conclusions of the Open Letter from the National Education Policy Center. The overemphasis on testing in the most recent reauthorization of the Elementary and Secondary Education Act (No Child Left Behind, NCLB) and which persists in the Race to the Top federal grant program, has diminished student and teacher creativity, to focus on only a narrow range of academic disciplines and easily testable skills, and to deprofessionalize teaching at all levels.

In the over one decade since NCLB was enacted, we have seen less open-ended, inquiry-based science being taught in our regions. Class time for science (as well as art, music, and social studies) is frequently reduced to provide more...
instructional time for the two most tested subjects — English language arts and mathematics. Such curriculum narrowing does a disservice to a student’s ability to compete globally and to foster a student’s overall education to be a productive citizen.

The NCLB waivers that some states have received have not improved these circumstances. In fact, many teacher evaluation systems that states have instituted remain largely based on student test scores as the primary component of a teacher’s and school’s “value.” Therefore, in some ways teacher and school performance are being solely judged on ill-conceived data influenced by the context (e.g., social and economic issues).

As educators of current and future science teachers, we at ASTE have also seen tangible, negative consequences of the current policy environment. We find that students are less prepared for university-level coursework. State departments of education often lower standards for science competency for future science teachers. The deprofessionalizing of teaching deters highly qualified individuals from choosing science teaching as a career and this is reflected in the recent enrollment trends in secondary science teacher education programs. These trends are at odds with both educators and policymakers’ desire to attract the best and the brightest students into the science teaching profession.

As you work to reauthorize the Elementary and Secondary Education Act, we urge you to take seriously our concerns that are corroborated by educational researchers nationwide. Please call upon us with questions you may have about science teacher education, as we are the leading organization representing those who prepare effective science teachers.

Respectfully, 

Dr. Lisa Martin-Hansen Dr. Joseph W. Shane  
President, ASTE ASTE Forum on Policy and Government Relations

Dr. Joanne K. Olson Dr. Ian C. Bins  
Past President, ASTE ASTE Forum on Policy and Government Relations

Dr. Malcolm B. Butler  
President Elect, ASTE
Executive Director’s Report
Contributed by Bob Hollon

It is August, so activity at ASTE is picking up. We’re getting ready for elections, membership drives and final planning for the Reno, NV conference coming up January 6-9, 2016. So, you will see emails with requests to vote, renew, recruit and register. Many regions will also hold their annual meetings this fall – they are a great tool to spread the word about ASTE and help new colleagues feel more comfortable joining the organization. Fall is a great time to plan ahead for new service opportunities, too, so please consider contributing to ASTE by volunteering to serve on a committee.

Membership

Over the past five years, ASTE membership has increased from about 660 people to over 700, though we are still lower than our ten year average of 730 people. On August 15, 2015 our membership profile included the following:

<table>
<thead>
<tr>
<th>Membership Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian</td>
<td>10</td>
</tr>
<tr>
<td>International</td>
<td>21</td>
</tr>
<tr>
<td>Retired</td>
<td>18</td>
</tr>
<tr>
<td>Student</td>
<td>175</td>
</tr>
<tr>
<td>U.S.</td>
<td>491</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>716</strong></td>
</tr>
</tbody>
</table>

The membership and participation committee is working with the regions and through direct contacts to reach out to potential new and former members to learn more about why people do and do not renew their ASTE membership. Share ASTE with new colleagues on your campus, send out the Newsletter, let people know about our journals and the ASTE web site, and bring an extra colleague (or two) to the 2016 annual meeting in Reno, NV. Please remember that ASTE membership operates on a calendar year. **You must have a 2016 membership to receive discounted rates for the 2016 annual conference in Reno.**

In 2015, rates for each annual membership category increased by $5 in anticipation of increases in operating expenses. The increase enabled us to provide startup resources for the new practitioner journal, complete some additional revisions to the web system, and offer some additional support for editorial work. **Membership rates for 2016 will be the same as 2015 rates.** However, the board acted this summer to reduce the membership rate for retired members from $60 to $35 beginning in 2016. ASTE is still a bargain whose value continues to increase as member benefits expand to include the new journal.
I recently reported some historical data to the board as part of an ongoing analysis of variables influencing our membership numbers. The table below summarizes our membership, conference attendance, and conference location for the past 13 years. Take a look at the data, our membership demographic, and ponder what variables might be shaping membership.

### ASTE Membership, Conference Attendance, and Location

<table>
<thead>
<tr>
<th>Year</th>
<th>Location</th>
<th>Members</th>
<th>Conf. Att.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>St. Louis, MO</td>
<td>700</td>
<td>900</td>
</tr>
<tr>
<td>2004</td>
<td>Nashville, TN</td>
<td>650</td>
<td>850</td>
</tr>
<tr>
<td>2005</td>
<td>Colorado Springs, CO</td>
<td>720</td>
<td>920</td>
</tr>
<tr>
<td>2006</td>
<td>Portland, OR</td>
<td>710</td>
<td>810</td>
</tr>
<tr>
<td>2007</td>
<td>Clearwater, FL</td>
<td>740</td>
<td>940</td>
</tr>
<tr>
<td>2008</td>
<td>St. Louis, MO</td>
<td>700</td>
<td>850</td>
</tr>
<tr>
<td>2009</td>
<td>Hartford, CT</td>
<td>690</td>
<td>840</td>
</tr>
<tr>
<td>2010</td>
<td>Sacramento, CA</td>
<td>710</td>
<td>830</td>
</tr>
<tr>
<td>2011</td>
<td>Minneapolis, MN</td>
<td>720</td>
<td>840</td>
</tr>
<tr>
<td>2012</td>
<td>Clearwater, FL</td>
<td>730</td>
<td>850</td>
</tr>
<tr>
<td>2013</td>
<td>Charleston, SC</td>
<td>740</td>
<td>840</td>
</tr>
<tr>
<td>2014</td>
<td>San Antonio, TX</td>
<td>750</td>
<td>850</td>
</tr>
<tr>
<td>2015</td>
<td>Portland, OR</td>
<td>760</td>
<td>860</td>
</tr>
</tbody>
</table>

### ASTE Finances

Through careful management, increases in journal sales and memberships, plus continued strong conference performance, ASTE now has just over $250,000 in reserves. The organization is in a position to invest a portion of the reserve while maintaining sufficient funds to meet organizational and contractual obligations. A typical goal for non-profits is to have enough funds on hand to meet 3 years of operating expenses and contractual obligations. The ASTE operating budget for 2016 and beyond will require about $55,000 per year to meet our contractual...
commitments for administrative positions, editors, and miscellaneous expenses such as web services, programming, and financial reporting. In addition, our contractual obligations to conference hotels should we need to cancel a meeting is about $80,000 - $100,000 in any single year. The board is actively seeking safe investment channels to put the reserve to work so that membership and conference fees can remain low.

Looking Ahead

2016 membership and conference registration for Reno, NV will open around October 5, 2015. Details will be available on the ASTE web site. The conference team is working hard to build an outstanding program with a full range of activities, field trips and keynote speakers. Conference rates will remain unchanged – we haven’t needed an increase since 2013. Early bird rates are $225 for regular members and $95 for students. You must be a 2016 member to receive the discounted rates. It is a significant discount from the onsite rates of $300/regular members and $160/student and non-member rates of $410. So, get an early start on your year by renewing your ASTE membership and registering for the conference.

2016 ASTE International Conference News
Contributed by Dave Crowther, Melissa Jurkeiwicz & Camille Stegman (Conference Committee)

January 6-9, 2016
Reno, Nevada
Forging New Trails towards 21st Century Science Education
It is time to make plans to attend the 2016 ASTE conference in Reno, Nevada! The program is full of excellent sessions and learning experiences centered on the conference theme of Forging New Trails towards 21\textsuperscript{st} Century Science Education. Our Keynote speakers are Dr. Zeb Hogan of National Geographic's Monster Fish and Dr. Joe McConnell from the Desert Research Institute (DRI) speaking on Climate Change.

The poster session and Thursday reception will be held at the Nevada Discovery Museum amongst the National Geographic Monster Fish traveling exhibit! The Reno destination also allows for great networking and excellent adventures in the Lake Tahoe region. Come early or stay late and visit beautiful Lake Tahoe with skiing, hiking, snow shoeing, ice skating, and other outdoor adventures awaiting you. Registration and hotel reservations will open in early October. We are gearing this conference up to be an enriching experience for researchers and science teacher educators to help shape the future of 21\textsuperscript{st} century science education.

The conference hotel will be the Peppermill Resort and Spa with numerous amenities (visit their web page here http://www.peppermillreno.com/). More information is available on the ASTE website (http://theaste.org/meetings/2016-international-meeting/).

The 2016 Program Committee would like extend thanks to the proposal reviewers, strand coordinators, and those of you who submitted a proposal for this conference. The final program will reflect the most up-to-date research in science education. The 2016 Program Committee plans on finalizing the program and conference schedule by late September to assist attendees in making plans for the 2016 International Conference.
An Interview with Bob Hollon
Contributed by Ron Hermann

This is the second of a series of interviews with ASTE leaders and members designed to provide greater insight into the association. We hope this section provides a better understanding of the roles and responsibilities of ASTE leaders and motivation for ASTE members to become increasingly more involved in the association.

Ron Hermann – Thanks for taking the time to answer some questions that may be of interest to ASTE members. You have served as the Executive Director of ASTE for a few years now and have a wide variety of responsibilities. What are a few of the essential roles you play in helping to ensure the association functions efficiently and effectively?

Bob Hollon – Well, I tend to separate roles and tasks in the sense that there are niches (roles) that people in organizations fill, and then there are the tasks (responsibilities) that people complete in order to ensure that the niche thrives in the system. The Executive Director's position description has a long list of responsibilities, and for me they fit into two main roles: Working directly with ASTE members to help them participate more productively in ASTE activities, and supporting the Board of Directors, officers, Director of Electronic Services and committees as they work to strengthen the organization. Generally, I manage the business affairs and fiscal activities such as budgets, taxes, insurance and risk management, facilitate conference site selections and negotiate contracts, work with John Rhea to manage membership information, maintain and provide lists for publishers, search for historical information, and generally work on whatever else comes up.

RH – How do you see the role of the Executive Director as it fits into the leadership of ASTE?

BH – "Leaders are not just the people in charge" are words of wisdom from the mouth of a 7th grader participating in my research on leadership concepts. One of the great things about working as part of the ASTE leadership is that there is generally an inclusive approach to strengthening the organization.

Although the Executive Director's role is to support the members, officers and board, I have a lot of input into the work of many groups through sharing information, providing some continuity and historical background, financial analyses, monitoring online discussions and the like. The Executive Director has detailed knowledge about the operation of the organization thus needs to take initiative in proposing new ways of working, and offering ideas for improvement. So, I see
the Executive Director's role as one of carrying out leaderful actions – working to help the various groups accomplish goals that collectively move the organization forward.

RH – What is the most enjoyable aspect of being the Executive Director?

BH – The people! ASTE is a community of bright, passionate people with strong commitments and a common interest in improving science education. I think it comes down to civility: We appreciate each other, even when we don’t agree about something. We say “please” and “thank you” – which may not sound that significant until you work in an environment where people don’t do those things. As an organization, we’re not perfect. But, when I sit in a board meeting or chat with people online or at the conference and hear about the real efforts being made to add value for members, correct problems and address limitations, I have a lot of confidence in our capacity to improve.

RH – What is the most challenging aspect of being the Executive Director?

BH – Not letting it consume all my time and energy?? The Executive Director has to constantly work with change – both internal and external. So, I am usually figuring out how to adapt to some new format for journal files, adjusting contracts to keep up with shifts in risk management, looking for better insurance, responding to board initiatives and working styles, working on better ways to keep the members informed about the path of the organization – you name it. I’m really lucky to have John Rhea working in the background turning nebulous discussions into structured online forms and data bases. Fortunately, I like to solve ill-structured problems so when something “can’t be done” it is just a flag waving in front of me saying “figure this out!”

RH – If there is one aspect of the ASTE that keep you awake at night, what is it?

BH – I worry about everything so I’m not so sure I can narrow it down. I fuss a lot about membership management and conference details, and refuse to allow the checking account to be off by even a few pennies. As I learn more about organizational risk management, I find myself looking more and more at our contracts and insurance policies to reduce our financial and legal liabilities.

RH – As you speak with ASTE members, what are some of the common themes that emerge from your discussions?

BH – People talk a lot about the community aspect of ASTE and how they like the inclusive and welcoming tone of ASTE events. They applaud the organization’s support of graduate students and wonder if more could be done to encourage their growth. I also hear from newer members
that we are behind the curve when it comes to innovation, especially at our conferences. We get pointed questions about social media, in particular.

RH – There are a lot of people in positions that fall under the umbrella of science teacher educators and therefore would likely benefit from being members of ASTE. Do you have any information, anecdotal or more tangible, as to the primary reasons people provide for not getting involved in ASTE?

BH – I don't want to go very far out on this limb without substantial data, but certainly the systems of rewards and recognition in higher education plays a significant role in where new faculty invest time and energy. If it doesn't count for tenure . . . Money is always a constraint, of course. I think that part of the challenge is marketing – making sure that people are aware of what ASTE offers to members. Another part, though, is ensuring that we offer value within the boundaries of our mission. Do we really have sound evidence about what current and potential members expect from ASTE?

Our challenge is not unique; most professional organizations are struggling to keep up with changing member demographics and how those demographics are altering both the content and delivery of goods and services. One very clear trend in the meeting/conference industry is that static content and text-based delivery is no longer attractive, yet that trend directly clashes with many norms in academia.

RH – It is clear that the Executive Board is focusing resources on trying to reach a wider range of people who may benefit from being ASTE members and attending the conference. As with any organization this is a challenge. Those who are, or have been, ASTE members know what the organization has to offer, but how do you communicate that to individuals who haven't been a member or to a conference?

BH – Email . . . just kidding! I think there are both reactive and proactive challenges. When people contact me, I respond with information about the organization, direct them to regional directors, the ASTE pages, and forward queries to the membership committee chair. I don't get a large number of direct requests – maybe 5-6 per year – since people who find me have usually already found the web site.

The larger challenge is being proactive – reaching out to potential members and marketing ASTE as the “go-to” organization for them. The ASTE membership and participation committee takes the lead on these activities, so most of my work is supporting the committee's efforts. Membership has increased each of the last three years, so the trend is in the right direction!
RH – ASTE is launching a new online journal in 2016. What was the impetus for the new journal and how does it fit in with JSTE and other journals? How does the journal align with the vision of the Executive Board?

BH – A lot of factors converged in support of the new journal, including member interests, fine-tuning of JSTE to increase ISI ratings, and the recognition that there really wasn't an outlet for scholarly work directed specifically to the implementation of improvements in science teacher education programs – what Boyer framed as the scholarship of application. During the past two years the board invested significant time and energy reexamining our mission and vision, and identifying new directions that would help ASTE better achieve its core goals. The practitioner journal addresses a significant gap in the resource base for improving science teacher education programs, and has the potential to catalyze new kinds of professional development, conference activities, and connectivity for current and future ASTE members.

RH – ASTE members that haven’t been involved with the Executive Board may not have a sense of the activities that occur to ensure the conference, journals, etc. function properly. All of these meetings and tasks require the commitment and a lot of time from ASTE volunteers. What are some of the activities that occur over the year that help the association run smoothly?

BH – It is really difficult to capture this in less than 50 pages . . .

ASTE is guided by a Board of Directors, whose members serve three-year terms in accordance with the ASTE Bylaws. Some are selected directly through the ASTE election process, while others serve on the board as part a rotating regional representative process. The Board of Directors meets each year before and after the January conference, and for three days in the summer. Board members are not compensated for their service, and are expected to pay for their own travel to the January meetings. The summer board meeting is funded by ASTE. The current board members, including ex-officio representatives can be found at http://theaste.org/about/.

ASTE is committee-based, which means that the bulk of organizational activity happens in those smaller groups. Currently, there are ten committees, nine forums, and more than 130 committee and forum members, with some ASTE officers serving as chairs or co-chairs of multiple committees. The full set of committees and forums, members, and the chairs is available on the ASTE web page at http://theaste.org/about/. The Board of Directors sets the goals for committee work each year, within the guidelines of the Standard Operating Procedures (SOP). Detailed descriptions of each committee are also found in the SOP, along with any materials that the committees need to carry out their work. The current SOPs are also available on the ASTE web page. One important exception is the elections committee, which by design operates independently from the board and whose members are elected directly from the organization.
Journals, newsletters, and ASTE sections in affiliate publications are guided by the ASTE publications committee with direction from the ASTE Board of Directors. Committees generally work under the guidance of their chairs, and report progress twice per year at Board of Directors meetings.

The conference is supported by committees that start their work two years before the meeting to organize local participants, solicit support, plan space for onsite and offsite activities, field trips, arrange speakers, and select food. Each year, the professional development committee solicits, reviews, and recommends to the conference committee a set of preconference and embedded workshops. ASTE recently implemented a conference program committee that manages the practical tasks associated with generating the call for proposals, reviewing submissions, and making accept/reject recommendations to the conference committee and chairs. This change will make life easier for the conference committee and improve consistency and efficiency in building each year’s conference breakout sessions.

The Executive Director and Director of Electronic Services support the activities of each committee, and manage the programming and data management for membership and conferences. We track patterns in membership, conference registration, hotel reservations, workshops, and anything else that someone wants counted, and pass the data along to the relevant committees.

Bob Hollon (second from left) at the ASTE summer board meeting excursion to Lake Tahoe.
RH – In what ways is the ASTE using the expertise of the Executive Board and membership to influence political decisions that affect science teachers and science teacher educators? Is there more that can be done?

BH – ASTE communicates closely with many partner associations to produce coordinated responses to proposed and existing policy initiatives. The ASTE officers, board, and the ASTE Policy Forum collaborate to generate position statements, letters to agencies and policy-makers, and the public to communicate the organization's position on issues affecting science teacher education. Can more be done? Always! But, we must balance the demand for advocacy with the recognition that our members are serving ASTE as volunteers while also carrying out their other career responsibilities.

RH – Since the Executive Director serves a longer term than other ASTE leaders, to what extent can the Executive Director help to ensure that institutional memory is passed along?

BH – Organize the files . . . The biggest thing is seeking ways to clarify official records of decisions and their implementation. It is a challenge since some elected officers haven’t recently served on the ASTE board, some have recent service, and others have not served on the board. One ongoing effort is to move all meeting minutes onto the ASTE board web page to make it easier for members to review past decisions. Another effort is to codify practices by adding procedures to the SOP, and working to ensure that committees have a blend of new and experienced members. But, so much of the core activity of the organization is carried out in committees thus encouraging those groups to be as diligent as possible in documenting their work also helps. ASTE has in place significant training/transition periods for the Executive Director and Director of Electronic Services positions to help the transitions for those positions.

RH – When your time comes to turn the reigns over to another Executive Director, what primary advice will you most likely give them?

BH – Don’t do this if you aren’t yet tenured! Actually, the best advice I could offer is to be flexible, take initiative and enjoy the time! It goes back to the idea of role vs. tasks. If you embrace the idea that the Executive Director’s role is to engage in leaderful actions that support the board, officers, and members, then the tasks become contributions rather than just some work. Trust is the core of organizational success, so have faith that the people you get to know on the board and in the organization are committed to the same goals, even when their ways of getting there are different from yours.

RH – Thanks again for taking the time to talk with me about the association. I'll see you in Reno.

BH – Actually, I’ll see you in Baltimore, last week in September, oysters on the harbor . . .
Mid-Atlantic - ASTE News
Contributed by Rommel Miranda, Regional Director

Please mark your calendars to attend the 2015 MA-ASTE Regional Conference next October 22-24 at Salt Fork Resort and Conference Center in Lore City, Ohio.

Please click on the following link to find out how you can make your reservation for a lodge room: http://ma.theaste.org/meetings/2015-mid-atlantic-aste-regional-conference/ Special thanks go out to our 2015 Regional Conference Planning Committee: Karen Irving, Christopher Atchison, Donna Farland-Smith, Kathy Malone, Lin Ding, Mandy Smith, and Kate Mollohan!

Also, please click on the following link to join our MA-ASTE Facebook group page: https://www.facebook.com/groups/1400991133530421/ This Facebook group page was created for the exchange of ideas and promotion of high-quality science teacher education, both pre-service and in-service. Special thanks go out to Eric Pyle and Christopher Atchison for volunteering to set-up and moderate our Facebook group page!

Lastly, if you are a graduate student planning to attend the 2015 MA-ASTE conference, please click on the following link for information regarding the 3rd annual MA-ASTE Graduate Student Presentation Award at http://ma.theaste.org/mid-atlantic-aste-graduate-student-research-presentation-award/
Please mark your calendars to attend the 2015 North Central ASTE regional conference on October 8-10, 2015 at Bradley University in Peoria, IL.

Kevin Finson has graciously agreed to be our host. Hotel reservations at a group rate can be made by contacting: Fairfield Inn & Suites—Peoria East (Group Rate: $99.00 USD per night; Address: 200 Eastlight Court, East Peoria, IL 61611; Phone: 309-699-4100).

The last day to book at the group rate is September 8, 2015.

Book your group rate for North Central ASTE

Some of you may be surprised to find out we are planning to go to Bradley University in Peoria, IL. We had originally planned to go elsewhere, but these plans needed to be altered due to hotel availability. We are grateful to Kevin Finson and Melanie Reap for assisting in the planning for our upcoming fall meeting.

The registration fee for the conference and cost of membership are as follows:

- Early registration (before Sept 25, 2015) - Faculty ($30.00), Student ($15.00),
- After Sept 25 or onsite - Faculty ($35.00), Student ($20.00)

Early registration (with a check payable to North Central-ASTE) should be mailed to Dr. Crystal Bruxvoort, Calvin College, Chemistry & Biochemistry Department, 3201 Burton Street SE, Grand Rapids, MI 49546. Receipts will be distributed at the fall conference.

Please use the following link to access information related to a call for proposals:

For a copy of the proposal form, contact Crystal Bruxvoort at cb29@calvin.edu

Email your proposal using the subject line: North Central-ASTE Proposal 2015 on or before Friday, Sept 4, 2015 to the Director: Crystal Bruxvoort at cb29@calvin.edu and cc the Director-Elect, Jerrid Kruse at jerridkruse@gmail.com. Proposers will be notified no later than Friday, September 11, 2015 of acceptance.
Please consider nominations for our organizational awards. We currently offer two awards to consider:

- **The Graduate Student Research Award**
  - Graduate students are encouraged to apply for the Graduate Student Research Award (info included in the call for proposals). The recipient of the Graduate Student Award will receive a monetary prize (reimbursement for the registration fee to the ASTE national meeting the following January). Send questions to Crystal Bruxvoort, Director, [cb29@calvin.edu](mailto:cb29@calvin.edu)

- **The North-Central Legacy Award**
  - This award is intended to honor long time members for their service and professional involvement in the organization. The nomination process involves putting forward a 250 word paragraph to the Executive Committee for consideration. Send nominations to Crystal Bruxvoort, Director, [cb29@calvin.edu](mailto:cb29@calvin.edu)
The publications committee of the Association for Science Teacher Education (ASTE) is seeking applications for Editor or Co-Editors of our new journal Innovations in Science Teacher Education. The duration of appointment is for five years, beginning in January, 2016, plus a half-year overlap (through June 2021) with the incoming editor(s) coming on board in January 2021.

Innovations in Science Teacher Education is a new peer-reviewed, online journal published quarterly focusing on all issues related to science teacher education including pre-service, induction, and in-service. The journal will publish manuscripts discussing innovative, inspirational and concrete ideas for enhancing teaching for all those associated with preparing and supporting the professional development of K-12 science teachers. Articles will be written by science teacher educators for science teacher educators, in the broadest sense of the word. The journal audience includes those with responsibilities for teaching science content to in/preservice teachers, teaching science methods and related courses to in/preservice teachers, coordinating and supervising science field practica for in/preservice teachers, professional development and instructing in/preservice teachers in all issues connected with science teaching more broadly.

The Editor(s) must be a member in good standing of ASTE. This individual should have expertise in science teacher education, as well as experience reviewing manuscripts for professional refereed educational journals. In addition, the editor(s) will be expected to attend annual meetings of ASTE and serve as an ex-officio member on the ASTE Publications Committee. Annual compensation for the editor(s) is $10,000.

Responsibilities:

The Editor(s) will:

* Maintain high academic standards for published manuscripts

* Publish four issues of the journal each year on January 1, April 1, July 1, and October 1.

* The inaugural volume should include two issues with the first being released on July 1, 2016.

* Originate the call for and the selection of manuscript reviewers

* Train reviewers

* Solicit manuscripts for the journal
• Screen submissions for relevance to journal and then assign manuscripts fitting the journal mission to two reviewers

• Consider reviews, decide disposition of manuscripts, and communicate decisions with authors

• Maintain communication between the journal and ASTE

• Maintain correspondence with ASTE reviewers

• Compile statistics and maintain files as appropriate for the journal

• Ensure that reviewers are thanked publicly on an annual basis

• Coordinate, conduct and/or participate in a "Publishing in Science Education" session at the annual ASTE meeting.

• Submit semi-annual board reports to ASTE through the Publications Committee.

Interested persons should submit an application to the Chairs of the ASTE Publications Committee. Full applications for the position are due by October 1, 2015 and must include a cover letter of application, vita(s), and a statement detailing institutional support, if applicable. The cover letter should include a description of the applicant(s) commitment with a specific focus on ASTE (and non-ASTE) experiences as an author, reviewer and editor (conference proposals, journals, ASTE newsletter etc.). Applicant(s) should also address their vision for the new journal and operating procedures such as securing and training reviewers, and a timeline for meeting the deadline for the inaugural issue. Gillian Roehrig (roehr013@umn.edu) and Meredith Park Rogers (mparkrog@indiana.edu).
Small Colleges and Programs Forum
Contributed by Daniel Meyer

ASTE's newest Forum had its inaugural meeting at the Annual Meeting in Portland. The Small Colleges and Programs Forum was created to meet the differing needs of members who are faculty in smaller programs and institutions. There was a desire among members to create a mechanism to provide mutual support and address both the unique needs and unique opportunities presented by work in smaller settings.

Science teacher education faculty in small programs are the only science education faculty member in an otherwise general education department. They are often therefore called upon to teach general courses and support the development of science teachers in other general courses. Small programs also lack the economies of scale that are becoming more important in this era of external accountability.

At the Portland meeting, participants also stressed the advantages to such positions. Faculty felt that they were closer to their students and had a greater impact on their lives. They also noted a greater and easier time impacting programs and policies across their home institutions.

It was because of these positive aspects that there was strong interest in holding a panel discussion highlighting faculty experiences, primarily aimed at graduate students, at the Annual Meeting. Other discussed activities included collaboration over research projects focused on the context of small colleges for science teacher preparation and regular conference calls to provide mutual support.

During the planning of the forum, there was a desire to keep the forum as inclusive as possible, hence the name “Small Colleges and Programs” recognizes the variety of contexts that share challenges and opportunities.

A Google Group has been created to facilitate communication and collaboration. Any ASTE members who are interested in being involved can join it at https://groups.google.com/d/forum/aste-small-colleges-and-programs-forum.

For further information about the forum contact Dan Meyer at daniel.meyer@mail.ic.edu.
CITE Reviewers and Submissions Needed
Contributed by Theresa Cullen

I am so excited to tell you that CITE Journal Science Education Section is publishing new articles. Look for upcoming articles about iPad use, the Next Generation Science Standards, and serious games! And consider submitting your manuscript at the journal website: http://www.citejournal.org

The CITE Journal – Contemporary Issues in Technology and Teacher Education is one of the oldest Open Source journals and is a collaboration of the leading education organizations in the country. The CITE Science Education Section is a collaboration between ASTE and the Society for information Technology and Teacher Education. We accept manuscripts on science education and technology combined.

We Need Reviewers!!! I need reviewers, we have great reviewers, but we need more! I am especially in need of reviewers with interest in elementary and middle school science education applications and earth science or geological interests. I have some great manuscripts submitted that need your input! Reviewers need to be members of ASTE but this includes graduate students and I try to assign at least one graduate student to each manuscript. If you are interested in reviewing, please email Theresa Cullen, CITE Science Education Section Editor at tacullen@ou.edu and I will walk you through the steps of signing up!

Manuscript Information
Manuscripts should directly address technology within science teacher education. Papers may focus on science teachers at any career stage including pre-service, new, continuing, or teacher leaders and any grade level including college science science teachers. Manuscripts that examine how technologies can improve programs, courses, or professional development as well as collaboration and partnerships are welcome. Papers that describe innovative approaches to technology enhanced science teacher education are specifically encouraged.

Submission Guidelines
1. Go to http://www.citejournal.org
2. Click on Submissions
3. Login with your AACE login information or create a new login.
4. Select ‘submit article’. Be sure to select CITE (science), as the journal.
Using the National Science Teachers Association (NSTA) online portal with Pre-Service Teachers
Contributed by Flavio Mendez

What if professors could select from existing collections of interactive web modules, simulations, lesson activities, e-chapters, and podcasts to create an engaging suite of content that is wrapped in an integrated community for sharing, rating, and discourse with badges, points and leader boards to engage pre-service teachers' learning?

The purpose of the NSTA Learning Center (http://learningcenter.nsta.org) is to enhance the personal learning of teachers by providing a suite of tools, resources, and opportunities to support their individual long-term professional growth based on their unique learning needs and preferences and within a professional learning community.

Over the past few years, professors at over 70 institutions of higher education have opted to use electronic resources from NSTA like journal articles, book chapters, interactive science modules, and lesson plans from the Association’s online portal called the NSTA Learning Center (NSTA LC) as an e-textbook when teaching pre-service teachers courses like elementary and secondary methods and other subject matter courses.

Working with NSTA staff and at no cost to the professors or their institution, course instructors can create a class landing page in the Learning Center and assemble collections of resources from the over 12,000 resources available online. In addition to using the resources in the Learning Center, instructors are able to upload their own resources or URLs from other web sites of interest to share with their students.

To track the student activity in the Learning Center, professors access their class administration dashboard which keeps track of all of their students’ online activity. Here is what professors have said about the NSTA Learning Center:

“One of the main advantages of using the NSTA LC as an e-text for teachers is that they become familiar with this resource and they can subsequently return to and use once they are in their own classrooms during their professional careers.” K. Sparrow

“The department chair told me that the NSTA SciPacks offer more in-depth content than what they had before and the students in this course are scoring about a mean of 18% above his other more traditional course.” K. Miller

Bundled with the e-Textbook is one year student membership to NSTA. The cost of the 1-year e-Textbook subscription and the student membership is $99 per student. Professors may choose instead a six-month e-Textbook subscription option and the student membership for $72 per student.

For more information about this opportunity, visit: http://learningcenter.nsta.org/etextbook
NGSS and edTPA Crosswalk Available
Contributed by Erica Brownstein

A crosswalk showing the connection between the Next Generation Science Standards (NGSS) and the secondary science edTPA is available. The document includes how NGSS practices are found in edTPA rubrics and writing prompts. It is located on the secure portion of the edTPA website: http://edtpa.aacte.org in the Resource Library. Any faculty using edTPA has access.

Free Online Training on Digital Dissection Software
Contributed by Samantha Suiter

ASTE members are offered personalized interactive online training on computer-based animal dissection software. The free training sessions will cover educational efficacy, economic benefits, ethical considerations and current laws and policies regarding the use of animals in science education. Participants will gain hands-on experience with popular digital dissection software programs.

Training is led by Samantha Suiter, a Science Education Specialist at People for the Ethical Treatment of Animals (PETA) who is a college biology instructor and member of ASTE, HAPS, NABT, and NSTA. Please contact Samantha at SamanthaS@peta.org or 843-771-2394 to set up a training session.

[Note from the Editors: Samantha presented a webinar for our NSTA student chapter that provided the benefits and challenges of both physical dissections and digital dissections. The students enjoyed the presentation and found it to be a completely unbiased presentation.]
American Museum of Natural History Resources
Contributed by Yael Wyner

For teacher educators teaching nature of science, science methods, or environmental science topics, data and media centered case studies produced by the American Museum of Natural History are now available online. These cases use published scientific data to explore the unintended consequences of daily life activity on ecological function. Controlled testing showed that they improve student learning of ecological function and environmental issues. The website includes three modules and additional case study materials each centered on published scientific data scaffolded for accessibility. The three case studies are:

1. How might being able to drive between Los Angeles and Las Vegas in just four hours put the bighorn sheep at risk?
2. How might snowy and icy roads affect Baltimore area’s water supply?
3. In what ways have people caused the Chesapeake Bay to become more vulnerable to algal blooms and dead zones?

Available from: http://www.amnh.org/explore/curriculum-collections/ecology-disrupted
Teaching Science and Investigating Environmental Issues with Geospatial Technology
Designing Effective Professional Development for Teachers

- Defines the field of teacher professional development for teaching science using geospatial technology
- Describes the design and outcomes of specific teacher professional development strategies and relates these to lessons learned
- Provides insights into best practices for preparing teachers to use geospatial technology as they engage students in projects
- That build skills in data analysis, problem solving, and spatial thinking

This book provides research-grounded and practically-minded insights into teacher professional development in support of integrating GIS and other geospatial technologies into K-12 science teaching. In this volume 50 designers, educators and researchers share their experiences, knowledge, and lessons learned from a wide variety of projects. Readers will find a myriad of ideas and perspectives that they can apply to their own teacher professional development projects, as they work to provide students with engaging opportunities for learning science.

Geospatial technologies enable teachers to teach in fundamentally new ways, building student interest and skill through active engagement in critical thinking and project or inquiry-based learning. Students are naturally drawn to looking at landscapes and interpreting features through analysis of both shape and form. Given the chance to manipulate spatial data, students revel in deciphering mysteries, exploring scientific explanations, and linking causes with consequences.

The passion and interest demonstrated by students using geospatial tools has motivated an increasing number of K-12 teachers to embrace the use of these technologies for teaching and learning science. Given the nature and complexity of these tools, high quality professional development is essential for providing teachers with the support and guidance they need to use geospatial technologies effectively.

This book will be of special interest to scientists, geographers, and science educators who are designing or delivering teacher professional development in support of teaching with technology. The case studies make it possible for readers to identify specific paths forward regarding both research and practice.

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M. Dias, C.J. Eick, L. Brantley-Dias (Eds.)

**Science Teacher Educators as K-12 Teachers**

**Practicing what we teach**

Series: ASTE Series in Science Education

- Makes a unique and powerful contribution to science teacher education by bridging the long-standing research-practice gap
- Presents several different but equally valid arrangements whereby teacher educators have returned to K-12 teaching
- Identifies common themes and implications for science teacher education and science teaching practice

Science teacher educators prepare and provide professional development for teachers at all grade levels. They seek to improve conditions in classroom teaching and learning, professional development, and teacher recruitment and retention.

*Science Teacher Educators as K-12 Teachers: Practicing What We Teach* tells the story of sixteen teacher educators who stepped away from their traditional role and entered the classroom to teach children and adolescents in public schools and informal settings. It details the practical and theoretical insights that these members of the Association of Science Teacher Educators (ASTE) earned from experiences ranging from periodic guest teaching to full-time engagement in the teaching role.

*Science Teacher Educators as K-12 Teachers* shows science teacher educators as professionals engaged in reflective analysis of their beliefs about and experiences with teaching children or adolescents science. With their ideas about instruction and learning challenged, these educators became more aware of the circumstances today’s teachers face. Their honest accounts reveal that through teaching children and adolescents, teacher educators can also renew themselves and expand their identities as well as their understanding of themselves in the profession and in relation to others.

*Science Teacher Educators as K-12 Teachers* will appeal to all those with an interest in science education, from teacher educators to science teachers, as well as teacher educators in other disciplines. Its narratives and insights may even inspire more teacher educators to envision new opportunities to serve teachers, K-12 learners and the local community through a variety of teaching arrangements in public schools and informal education settings.
K.C. Wieseman, M. Weinburgh (Eds.)

Women’s Experiences in Leadership in K-16 Science Education Communities, Becoming and Being

Series: ASTE Series in Science Education

- Discusses why women’s leadership within science education is largely invisible
- Contains significant stories around the feminine not as gender but as construct, a quality in all of us
- Discusses the power/promise of feminine approaches to transform traditional leadership cultures
- Discusses relational ways of knowing as theoretical foundation
- Determines that anyone can lead and each of us should lead

A discourse on women’s leadership within science education has, until now, been largely invisible in book form. This, therefore, is the first book to address women’s leadership within science education.

The book embraces relational ways of knowing as a foundation for leadership and takes courageous steps by exposing our innermost tensions, dilemmas, and feelings about leadership, making them available to others. The power/promise of feminine approaches to transform traditional leadership cultures is also addressed.

The authors believe that anyone can lead, regardless of position, title, years of experience or age. They also believe that each of us has a responsibility to provide some leadership and direction for the shared endeavours of which we are part.

The purpose of the book is to inspire and guide educators and academics in K-16 science education, as well as individuals in other professions, as their leadership skills develop. The leadership activities provided offer guidance and/or concrete ways to delve into issues of leadership.
The Inclusion of Environmental Education in Science Teacher Education

A. Bodzin, B. Shiner Klein, S. Weaver (Eds.)

Examines and discusses environmental education foundations and pedagogical principles. Informs about the historical and philosophical underpinnings of environmental education as well as current trends. Includes case studies that highlight the teaching and learning of environmental education content and concepts in science teacher education. Discusses the integration of technology to promote the teaching and learning of environmental education in science teacher preparation.

In the coming decades, the general public will be required ever more often to understand complex environmental issues, evaluate proposed environmental plans, and understand how individual decisions affect the environment at local to global scales. Thus it is of fundamental importance to ensure that higher quality education about these ecological issues raises the environmental literacy of the general public. In order to achieve this, teachers need to be trained as well as classroom practice enhanced. This volume focuses on the integration of environmental education into science teacher education. The book begins by providing readers with foundational knowledge of environmental education as it applies to the discipline of science education. It relates the historical and philosophical underpinnings of EE, as well as current trends in the subject that relate to science teacher education. Later chapters examine the pedagogical practices of environmental education in the context of science teacher education. Case studies of environmental education teaching and learning strategies in science teacher education, and instructional practices in K-12 science classrooms, are included.

This book shares knowledge and ideas about environmental education pedagogy and serves as a reliable guide for both science teacher educators and K-12 science educators who wish to insert environmental education into science teacher education. Coverage includes everything from the methods employed in summer camps to the use of podcasting as a pedagogical aid. Studies have shown that schools that do manage to incorporate EE into their teaching programs demonstrate significant growth in student achievement as well as improved student behavior. This text argues that the multidisciplinary nature of environmental education itself requires problem-solving, critical thinking and literacy skills that benefit students’ work right across the curriculum.
Recruiting and Educating Future Physics Teachers: Case Studies in Effective Practices
Contributed by Cody Sandifer

The Physics Teacher Education Coalition, the American Physical Society, and the American Association of Physics Teachers are proud to announce the release of a new peer-reviewed book: *Recruiting and Educating Future Physics Teachers: Case Studies and Effective Practices*, edited by Cody Sandifer and Eric Brewe.


*Recruiting and Educating Future Physics Teachers* provides a practical guide to innovative, state-of-the-art programs, and includes papers in the following areas:

- Preparing Future Physics Teachers: Overview and Past History
- Case Studies of Successful Physics Teacher Education Programs
- Recruiting and Retaining Future Physics Teachers
- Structuring Effective Early Teaching Experiences
- Preparation in the Knowledge and Practices of Physics and Physics Teaching
- Mentoring, Collaboration, and Community Building

The intended audience is physics department chairs and faculty, as well as faculty in Colleges of Education who are engaged in physics teacher preparation. The book might also be of interest to teacher educators in other disciplines – particularly chemistry educators, who face a similar national shortage in well-qualified high school teachers.
Birds Without Borders: Investigating Populations, Habitats, and Conservation of Birds in the U.S. and Abroad

by Nancy Trautmann (Cornell Lab of Ornithology) and Jim McKinster (Hobart and William Smith Colleges)

Are you looking for ways to build your students’ quantitative skills, engage them in critical reading and writing, and have them see the relevance of key science concepts in addressing real-world issues?

In Birds Without Borders, students analyze data generated through citizen science and professional science to draw conclusions about habitats, adaptations, population dynamics, and conservation needs of birds in the U.S. and across the Western Hemisphere. Classroom-ready materials include online maps and datasets. Student worksheets can be downloaded for customization and printing.

“Birds Without Borders provides core content knowledge on concepts such as how ecosystems function and why birds matter. The book also provides practical lesson plans, hands-on activities, and resources, focusing unwaveringly on data. Through grappling with data stored in a variety of formats, students learn how to deal with using data and uncertainty in investigations. That practicing classroom educators were involved in creating and testing the activities is evident, because the activities are rich, engaging, and meaningful. They make use of web-based mapping tools and mobile technologies that have become incredibly powerful and yet easy to use, but low-tech options are always included.”

- Joseph Kerski, Education Manager, Esri

Investigation 1. Discovering the Ecological Roles of Birds
Investigation 2. Exploring Habitat Needs of Nesting Birds
Investigation 3. Determining Annual Life Cycles of Local Birds
Investigation 5. Tracking Birds with Citizen Science
Investigation 6. Investigating Bird Biodiversity Across the Americas
Investigation 7. Exploring Bird Conservation Needs at Home and Abroad
Investigation 8. Creating a Conservation Plan


Print Price: $39.99
eBook Price: $19.99
Publication Date: 2/25/15
Pages: 202

Birds Without Borders is a product of the Crossing Boundaries Project, which was originally funded by the National Science Foundation.
New Book Information

Going Back to Our Future II: Carrying Forward the Spirit of Pioneers of Science Education

Editors: Jon E. Pedersen, University of Nebraska-Lincoln; Kevin D. Finson, Bradley University; Barbara S. Spector, University of South Florida

A volume in Pioneers of Science Education
Series Editor: Jon E. Pedersen, University of Nebraska-Lincoln

“Who were the pioneers in science education, and what motivated them to do what they did?” This book is the second volume of an attempt to capture and record some of the answers to these questions—either from the pioneers themselves or from those persons who worked most closely with them. As with the first volume, we have attempted to include as many pioneers as possible, but we know that there are still many that are not included in this or the previous volume. As we have posed questions, rummaged through files and oft-neglected books, and probed the memories of many individuals, we have come to realize our list of true pioneers is ever growing.

As we consider our list of pioneers, we know that there are names on the list that most of us readily recognize. We also fully realize that there are names of whom few of us have heard—yet who were significant in their roles as mentors or idea development and teaching. We continue to be impressed with our science education “family tree” ever branching out to more individuals and connections. The stories in this volume continue to demonstrate how vital this network was in supporting the individual pioneers during their journey in difficult times and continues to be for those of us today in our own enterprise.


For more books in this series visit: http://www.infoagepub.com/series/Pioneers-of-Science-Education

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Reimagining the Science Department
Contributed by Todd Campbell

Reimagining the Science Department (2015), co-authored by Dr. Wayne Melville, Doug Jones, a Lakehead District School Board science department Chair, and Dr. Todd Campbell from the University of Connecticut, is now available in print format and as an e-book.

Posing the question, "What if you could change the department-level factors that don’t support teaching and learning?," Reimagining the Science Department is described by the National Science Teachers Association as a book that offers a rich historical perspective alongside strategies, practitioner vignettes, and related research that can be used immediately by those in science departments.

"We wrote the book to assist science chairs, teachers, and administrators in beginning the task of reimagining the science department as a place where teachers are encouraged to question both their beliefs about science and the teaching and assessment strategies that develop in response to those beliefs. Only when teachers have the freedom and capacity to question their beliefs, and develop their teaching and learning, can real improvements in the teaching of the practices of science be sustained," Dr. Melville said.

The NSTA further notes that the five-chapter book is a "must-read resource for chairs and those who aspire to become chairs, but [is] also useful for school administrators and school board members who are committed to developing a department in which the practices of science are taught for the benefit of all students."

For more information on the book, please click here.
Applications of Visual Data In K-16 Science Classrooms
Contributed by Kevin Finson

This book examines visual data use with students in PK-16 as well as in pre-service and in-service science teacher preparation. Each chapter was written by members of ASTE, and includes discussion about the current state of the art with respect to science classroom application and utilization of the particular visual data targeted by the author(s), discussion and explanation about the targeted visual data as applied by the author in his/her classroom, and of visual data as a diagnostic tool, its use as an assessment tool, and discussion of implications for science teaching and/or science teacher preparation.

For more information on the book, please click here.

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In Memoriam: Dr. Larry G. Enochs  
Contributed by James Ellis

Dr. Larry G. Enochs passed away on Friday, June 26, 2015 surrounded by his family. Larry was 75 years old, and leaves behind his wife, Lola, two children, and five grandchildren. He taught junior high school earth science after earning his teaching degree in 1967, followed with a MA in science education in 1970 and then his EdD in 1982 at Indiana University-Bloomington. Larry taught at the University of Houston – Clear Lake, at Kansas State University, and Oregon State University. He served two years with NSF as a visiting scientist program director beginning in 1991. After his retirement in 2011, Larry and his family moved to the Kansas City area, where he remained active in science education-related activities with various universities and local agencies, including serving as adjunct faculty at the University of Kansas.

Over the course of his career, Larry directed 24 PhD dissertations, served on an additional 27 dissertation committees, and directed 5 MA theses. He served as co-editor of the Journal of Science Teacher Education, and received the distinguished service award for that work in 2004. He served on the board of directors for Association for Science Teacher Education and School Science and Mathematics Association. In 1991, Larry received the SW-AETS Outstanding Science Educator Award. He published over 60 articles and book chapters, and nearly 25 technical documents and evaluation reports for federal and state agencies. He was highly regarded for his ability to secure extramural funding, garnering over $6.7M during his career.

Among Larry’s notable accomplishments was the co-development of the self-efficacy beliefs instrument (STEBI) that has seen much use in the international science education community. Larry was known as a caring and kind mentor, enjoying humor and good down-to-earth conversations. Larry was admired for his knowledge of research practices, and his desire to help others learn and grow as professionals and individuals.
**Newsletter Information**

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- Spring May 15

All members are invited to submit items.

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