President's Message Autumn 2021

As I sit down to write my last President’s message for the newsletter, I’m amazed at how quickly my term has seemed to pass—especially given other aspects of day-to-day life that have seemed to proceed at a snail’s pace. Reflecting on the year, I returned to my candidate statement for the ASTE Presidency, in which I wrote:

...we need to think both about and beyond our annual meeting to identify ways that we can engage members in providing their leadership and expertise, and in collaborating and learning from one another. I believe ASTE can better leverage technology to enhance the accessibility of our collective knowledge to practitioners and policymakers and extend ASTE’s unique sense of community to all our members—both current and potential.

Little did I know how much we would become reliant on technology to engage, collaborate, and learn from one another during the pandemic! Here are just a few related highlights—

- In early 2021, we held our first successful virtual conference. While many are looking forward with great enthusiasm to returning to face-to-face conference experiences in 2022, we know not everyone can be physically present in Greenville. We’ve been able to leverage our learning from 2021 to offer a concurrent virtual conference experience for our members to connect and learn from one another.
This past year, ASTE has been able to offer webinars on Getting Involved in ASTE, Writing Successful Conference Proposals, and the Graduate Forum held a Mini-in-May event. Additionally, webinars are planned in conjunction with a special issue of JSTE, and in support of our Forums. In partnership with NSTA, we will also be launching an annual webinar miniseries for science educators of all levels.

We conducted outreach to the membership about opportunities to get involved in initiatives including review of ASTE sponsored sessions at NSTA conferences, review of ASTE’s position statements, formation of new committees and forums, and opportunities to serve as presiders, proposal reviewers, and thread coordinators for our annual meeting.

Newsletter Editor Jennifer Oramous has created new opportunities for members’ voices and work to be shared in our quarterly newsletter, as well as for us to celebrate our colleagues’ accomplishments.

Most recently, we launched a newly redesigned website with enhanced features for members, thanks to the efforts of our Director of Electronic Services, John Rhea.

While what I’ve described above is visible work, I also want to acknowledge the invisible work behind the scenes by the ASTE Board, Staff, and Committees to make these things happen. Ongoing efforts have been made to improve the function of the organization, to both bring us into alignment with our SOPs and to make productive changes to those. Additionally, significant work has been done to enhance our membership data to better enable us to communicate with members, recognize their contributions, and encourage their involvement in the organization. These efforts have created important infrastructure that will help us continue to grow and diversify our membership and leadership, and to strengthen ASTE’s position as a leading voice in science teacher education.

I have found serving as President to be equally rewarding and challenging—which has helped me grow both personally and professionally. I want to thank you for the opportunity and am eager to continue to support ASTE as the Past-President. I look forward to (re)connecting with you in-person, or on Zoom, at our upcoming annual meeting!

Celebrations

In late 2020, Dr. Julie Contino at RGGS-AMNH received the New York State Association of Teacher Educators (NYSATE) R. Neal Appleby Outstanding Teacher Educator Award.

Earlier this fall, Sumreen Asim was awarded the Distinguished Teaching Award from Indiana University Southeast

To submit your celebrations go to the ASTE Newsletter online form! We want to celebrate our wonderful members’ accomplishments!
ASTE elections will run from October 12, 2021 through November 27, 2021. The slate of candidates is listed below. The ballot and candidate background information are available at https://theaste.org/members/elections/election-ballot/. You must be a 2021 member and logged in to view the information and cast your vote.

President (1)

Ian Binns
Andrea Burrows
David Crowther

Board at Large (2)

Mark Bloom
Lisa Borgerding
Julie Contino
Rita Hagevik
Elections

Elections Committee (3)

Selina Bartels
Mike Borowczak
Natasha
Cooke-Nieves
Ron Hermann
Jessica Riccio
Preethi Titu

Questions should be directed to Amanda Glaze at aglaze@georgiasouthern.edu or Jeanne Wieselmann at jwieselmann@mail.smu.edu.

Technical difficulties should be referred to John Rhea at des@theaste.org.

Regards,

The ASTE Elections Committee
2022 ASTE International Conference
Greenville, South Carolina

Please join us in Greenville, South Carolina for the 2022 ASTE International Conference, January 5-8. We are especially excited to return to an in-person conference and hope the conference provides an opportunity to reconnect with peers, colleagues, and friends. The conference theme is “Why Science Education?” We hope the conference presents an opportunity to reflect on the importance of science education so that we can then better explore what constitutes good science education and how to best teach.

Greenville is served by the Greenville-Spartanburg Airport (GSP) with over 100 daily flights from key hubs including Atlanta, Charlotte, Chicago, Dallas/Fort Worth, Philadelphia, Denver and more. The hotel is a short 15-minute ride from the airport and the hotel is providing a free hourly airport shuttle. The Hyatt Regency located on top of Main Street and is serving as the conference venue. Over 100 restaurants, galleries, coffee shops, breweries, and boutiques are outside the doors of the hotel.

We are fortunate this year that the ASTE Environmental Education Forum have prepared an outstanding package of environmentally focused experiences that take advantage of the natural beauty in Greenville. The pre-conference trip Storying a Place: The transformative power of eco-experiential learning is wonderful opportunity to explore Falls Park and experience first-hand the healing power of an urban park. The Thursday opportunities include exploring the Swamp Rabbit Trail by eBike and a visit to the Roper Mountain Science Center.

There will also be two commercial workshops on Wednesday afternoon; one about how NSTA resources can engage your preservice teachers, and a second one from Kids Making Sense about using low-cost sensors to teach students about air pollution and empower them to drive positive change in their communities. Other conference activities for networking and learning include the Thursday morning Fun Run/Walk through Falls Park, the Friday WISE dinner, Social Dinner Meetups, and the Regional Meetings. There are so many opportunities to connect with colleagues and peers.
Greenville is a star attraction with Main Street earning Forbes Magazine top 10 best American downtowns, and both Parade magazine and Travel + Leisure’s top 10 best Main Streets. The New York Times called Greenville “a national model for a pedestrian-friendly city center.” Zagat described Greenville’s food scene as the number 1 under-the-radar Southern food destination and Esquire describes Greenville as “the next big food city of the South” offering many destinations for social gatherings. After experiencing Greenville, you will understand why it is the third fastest growing city in the country.

ASTE is always a wonderful professional opportunity to network, connect with colleagues and peers, share your research, and learn! This year we can enjoy Greenville’s hospitality and weather, which averages 52 degrees F in January. We are looking forward to seeing you in Greenville!
Contributor: Kelly Feille
The Southwest region of ASTE held our annual conference on October 22nd in The Woodlands, Texas hosted by Andrea Foster of Sam Houston State University. We had in-person and virtual attendees from 3 states and 15 incredible research presentations featuring faculty and graduate students from 12 different universities within the region. Our theme of “Bees, Trees, & Breweries" was realized through social events Friday and Saturday evening and an informative lunchtime guest lecture by Beekeeper Nanette Davis of the Montgomery County Beekeeper Association (complete with a few live escapees!) Thank you to President, Andrea Foster, for a fabulous conference.

We are looking forward to a visit to gorgeous San Marcos, Texas next year hosted by our new President-Elect Sunni Taylor. Congratulations to Gil Naizer, re-elected to treasurer, and we look forward to confirming our incoming secretary with an upcoming vote.

Keep a look out for Graduate Student Travel Awards and Graduate Student Showcase applications in your inbox soon!

If you were unable to attend and need to renew your regional membership, please visit https://sw.theaste.org/home/swaste-membership/. Additionally, you can update your mailing list contact information here https://sw.theaste.org/contact-us/

It was wonderful connecting with colleagues, and we look forward to seeing everyone once again in January in Greenville!

For updates, check the regional websites here
Southeastern Region (SASTE)

The annual meeting of the Southeastern Association for Science Teacher Education (SASTE) was held on October 16, 2021, in Safety Harbor, Florida. We had 49 presentations which were delivered both in person and virtually. Thank you to Dr. Melanie Kinskey (Sam Houston State University) for hosting a very successful hybrid conference!

During the SASTE business meeting, Dr. Josh Ellis (Florida International University) was elected as our new President-Elect; and Dr. Emily Dare (Florida International University) was elected as our new Secretary-Treasurer.

Congratulations to Dr. John Pecore (University of West Florida) for receiving the John Shrum Award in recognition of his lifelong commitment to science education and participation and leadership with SASTE. Congratulations also to Dr. Natalie King (Georgia State University) for receiving the Deborah Tippins Mentor award in recognition of her exemplary mentoring of junior SASTE members.

Please connect with SASTE on Facebook: https://www.facebook.com/groups/836160499779751

Far West Region

The Far West Region would like to announce two upcoming virtual events. The first is the Far West ASTE Fall Business Meeting, which will be held on Monday December 6, 11:00am-12:00pm (Pacific Time). The second event is the Far West ASTE Virtual Conference, which will be held on January 6, 2:00-5:00pm (Pacific Time). Proposals for presentations at the conference on January 6 are due November 29. Please contact the Far West ASTE Regional Director, Corinne Lardy (corinne.lardy@csus.edu) for additional information including Zoom links and information to submit a presentation proposal.
Mid Atlantic Region

Our 2020 MA-ASTE meeting was held virtually and hosted by Towson University, but the North Carolina conference planning team was hopeful that in 2021, we would be able to safely hold a face-to-face regional conference again. On September 22-24, 2021, the annual meeting of the Mid-Atlantic Association of Science Teacher Education met in person in Blowing Rock, NC! Conference coordinators Margaret Blanchard (North Carolina State University), Leslie Bradbury, Lisa Gross, Rachel Wilson (Appalachian State University), and Kristie Gutierrez (Old Dominion University) coordinated an in-person conference for those able and willing to attend and worked to accommodate a few attendees virtually whose travel plans changed at the last minute.

The 54 attendees, including 15 graduate students, had opportunities to participate in 6 paper sessions with 24 presentations, 1 roundtable session with 8 roundtable presentations, and 9 poster presentations. The number of first-time attendees was 25, and 9 states were represented (Indiana, Illinois, Kentucky, Maryland, North Carolina, Ohio, Tennessee, Virginia, and West Virginia). The conference ended with a Business Meeting where Sarah Haines (Towson University) was elected to serve as secretary. University of Cincinnati colleagues will be coordinating to host next year’s conference in Ohio. We would like to thank outgoing secretary Meredith Kier (College of William and Mary) and treasurer Kristie Gutierrez (Old Dominion) for their outstanding dedication, commitment to excellence, and service to MA-ASTE.

For updates, check the regional websites [here](#)
ASTE Graduate Student Forum Updates

The ASTE Graduate Student Forum is getting excited about hosting graduate student events for the upcoming ASTE 2022 International Conference again! We are especially looking forward to being able to see some of our members in person in Greenville, South Carolina and making those attending virtually feel as much a part of our community as we can.

The Graduate Forum events include the graduate student luncheon, the 3-Minute Thesis (3MT®) competition (3MT Registration Form), the graduate student workshop, and a social event to reconnect and welcome new graduate students.

Over the last few years, the workshop has provided graduate students with a wealth of insight about the transition from graduate student life, building your CV and professional credentials, and alternate career paths (outside of academia). The support from experienced scholars and mentors is truly invaluable. Our workshop scholars and speakers include:

Dr. Lenora Crabtree - University of North Carolina, Charlotte
Dr. Katie Green - Clarke Central High School
Dr. Becky Kamas - NASA, Office of STEM Engagement
Dr. Melanie Kinskey - Sam Houston State University
Dr. Kathy Trundle - Utah State University

Our ASTE Graduate Student Forum leadership will also be undergoing the yearly transition of officers at the conclusion of the conference. I (Regina) will be passing the presidential baton to Chelsea Sexton, the current President-Elect. We will be electing a new Vice President as Selene Willis, our current Vice President, will be ending the designated year of leadership. Additionally, we hope to vote in a new President-Elect. Selene, Chelsea, and I have thoroughly enjoyed leading together, launching the Mini-in-May Graduate Student Conference, and supporting each other through the ups and downs of doctoral student/candidacy life. We have certainly become ASTE Besties!

I am hopeful that the ASTE Graduate Student Forum continues to thrive and bring in new ideas and fresh perspectives to continue the development and support for graduate students’ scholarship, practice, and work in science teacher education.

Regina McCurdy
ASTE Graduate Student Forum President
rmccurdy@georgiasouthern.edu
New Resources and Other News

Contributor: Karen Woodruff

Endeavor STEM Teaching Certificate Project invites educators of all levels to join our national network through flexible enrollment options:

1. Certificate in STEM Education. Earn a graduate Certificate in STEM Education by selecting courses that YOU want to take. Earn graduate credit and the STEM certificate by selecting an option that meets YOUR needs!
2. Take One Course. Select from one course option for the semester. If you like the program, continue to earn the Certificate in STEM Education or a master’s degree.
3. STEM Mini PD Modules. Focus on a specific aspect of your STEM practice in a 6-hour PD module.
4. Master’s Degree with STEM Education Concentration. Earn a master’s degree with one of our regionally accredited university partners.

Endeavor STEM faculty are distance learning experts, developing STEM educators with a vetted live, online format. All courses involve NASA scientists and engineers and integrate NASA mission data for applied STEM learning across disciplines.

PK-12 Classroom Educators – Take advantage of flexible enrollment options to meet your STEM teaching goals. Join us for our Spring 2022 Semester. Classes start mid-January. Register for an online information session.

University Teacher Educators – Learn how our partnership model can help build your STEM programs. Contact Director, Dr. Karen Woodruff

Contributor: Stephanie Holm

The Knowles Teaching Fellows Program is a five-year program that supports early-career, high school mathematics and science teachers in their efforts to become great teachers who lead from the classroom.

Knowles Teaching Fellows have access to invaluable resources that help transform new teachers into great teachers who make a difference in the lives of students in their classroom, their school and beyond.

If you know a first-year or pre-service mathematics, chemistry, physics, or biology teacher who would benefit from participation in an intensive and cohesive professional development program, please use the buttons below to share this message and encourage them to apply.
Dear Colleagues,

The Science Education Department at the Center for Astrophysics | Harvard & Smithsonian has been funded by the National Science Foundation (award # 2013263) to conduct a nationwide study of the strengths and weaknesses of STEM and teaching knowledge of individuals who will soon enter the STEM teaching workforce titled “Study of Preservice Teachers’ Science Content Knowledge and Pedagogical Content Knowledge.” By examining these preservice teacher experiences before and during their preparation, this research seeks to reveal the experiences that optimize teacher knowledge for effective science teaching. It will also assess the prevalence and efficacy of novel approaches developed for preservice teacher preparation, which can provide policy makers with information to inform the design and expansion of preservice teaching programs. Two main questions addressed by our research are:

1. “What is the strength of subject matter knowledge (SMK) of preservice teachers in the field and for the grade-level that they plan on teaching?” and,
2. “What is the strength of a key type of pedagogical content knowledge in preservice teachers, their knowledge of the non-scientific ideas that their future students will hold (sometimes called “misconceptions” in the literature), referred to as PCK-M?

We would like your help in recruiting participants from your institution in this national study. We are interested in administering a survey to undergraduate students in Science Methods (or General Methods if not specified) classes because students of all intended education majors take these classes. Participation in our study requires minimal commitment on the part of your professors. The survey should preferably be given at the beginning of the fall 2021 semester but could be given anytime during fall 2021. It involves giving the link to our online survey to each undergraduate student in Methods classes (Science classroom. Our methodology has received IRB approval from Harvard University (attached). The survey is voluntary and anonymous. As a small token of our appreciation, each participating professor will receive a $50 e-gift card for their time and effort in having students complete the survey as part of the class. In addition to the initial survey questions, we ask students to
We will disseminate our results to education professionals, policymakers and other stakeholders. By informing those with influence over pre-service teacher coursework, we hope to encourage greater use of, and funding for, such opportunities with the goal of enhancing and improving pre-service teacher preparation.

My colleague Cynthia Crockett will facilitate your participation in this study. She will be able to provide additional details. Please feel free to contact her at cicrockett@cfa.harvard.edu.

We sincerely hope that your institution will be part of this important study.

Thank you for your time and consideration.

Sincerely yours,
Philip M. Sadler, Ph.D.
Principal Investigator
Science Education Department
Harvard College Observatory
60 Garden Street, MS-71
Cambridge, MA  02138

And as popularized in our award-winning documentary, A Private Universe (Schneps & Sadler, 1987), which is heavily used in preservice and professional development programs (Aydeniz & Brown, 2017; Konicek-Moran & Keeley, 2015).
Innovations in Science Teacher Education is ASTE’s practitioner journal in which we share ideas, thoughts, and actions for educating all levels of teachers of science, both pre-service and in-service. As we continue down this path as the new editors, we have several announcements.

Volume 6, Issue 4 of the Innovations in Science Teacher Education journal is now available. With Guest Editorial: On the Purpose and Promise of Technology in the Science Classroom, by Dr. Joshua A. Ellis and much more.

Submit your Manuscript to Innovations. Have you had success educating pre-service or in-service teachers online or in hybrid situations? Have you found a new and effective way for clinical hours in our current situation? What about supporting science teachers’ uses of culturally relevant practices? These are just a few ideas for many activities, ideas, or strategies you could submit to Innovations to share and inspire other science teacher educators. For author guidelines for submitting a manuscript to the Innovations journal, please visit the following webpage: https://innovations.theaste.org/submit/instructions-to-authors/

Write a Guest Editorial. Did you know each issue of Innovations in commentary on a timely topic that is relevant to science teacher education? We would like to include ideas and commentaries from different perspectives, not just our own. These are commentaries, editorials, not full articles so they are 500-750 words. If you are interested in contributing a guest editorial on a timely topic, please reach out to us with your idea.

Please join our Facebook Group at: https://www.facebook.com/ISTEjournal/ so that you can receive announcements regarding the Innovations journal.

If you have any questions regarding the Innovations journal or are interested in the Guest Editorial, please contact the editors: Sarah Boesdorfer and Rebekka Darner at ISTEjournal@ilstu.edu.
Don’t forget - Submit your articles about technology, science, and teacher education today!

Check out the new articles in CITE Journal Science -

Current CITE Issue: https://citejournal.org/publication/volume-21/issue-3-21/

ASTE sponsored Science Education section: https://citejournal.org/category/science/

Newsletter Notes

Published four times a year by the Association for Science Teacher Education.

Hello all! I bring you the latest installment of the newsletter and hope you find it informational and entertaining! We are asking for new, different and more short pieces to publish. View the invitation to submit here. To start moving in this direction, we ask that you continue to submit all contributions to the ASTE Newsletter online for all future submissions. This link will also go out with all future calls. We are also in the process of updating the newsletter so look for exciting updates in the next issue!

Please feel free to contact me at any time if you have items that you feel are good for the newsletter or if you have any suggestions on how we may improve it. I love being able to serve you all, the members and organization of ASTE, through the newsletter.

Co-editors Andrea Burrows and Helen Meyer encourage ASTE members to submit articles and reach out about potential article ideas. They ask that the authors check for a clear connection to science education and technology (e.g., pre or in-service teacher education or college-level faculty). Additionally, they encourage authors to embed interactive technology in the manuscript (e.g., links, video, audio, animation).

ASTE sponsors the CITE Journal Science Education section and they would like to see your work highlighted!

Email Andrea.Burrows@uwyo.edu or Helen.Meyer@uc.edu with any questions.

Henry B. Schuster
ASTE Newsletter Editor

Issue items due by:

Autumn Oct. 10
Winter Feb. 10
Spring May 10
Summer Aug. 10

All members are invited to submit items.

Editor: Jennifer Oramous
Email: newsletter@theaste.org

Newsletter Sleuth Challenge: Use the clue below to locate the ‘easter egg’ to become a Newsletter Sleuth! Remember to click on it.

Clue: