**President’s Message Autumn 2020**

I wish things were different and I could use this newsletter to expound on some issue that was not related to the pandemic. However, we need to continue communicating regarding the status of our upcoming conference.

A Virtual Conference task force has been appointed and will be finalizing details in the upcoming weeks. As of now, the plan is for most of the conference to be asynchronous with a spattering of live events. We are still working on how all of this will take place, but be assured that we know the membership values the opportunity for discussion, questions, and interactions with their colleagues.

Tentative plans include:

- Regular paper session presenters will be asked to upload brief video/voice-over PowerPoint presentations along with their paper in advance of the conference. This will allow interested members to view presentations and papers in advance of scheduled synchronous paper discussion times.

- Poster presenters will be able to upload a virtual poster and have individual 'chats' with colleagues.

- Workshops and themed paper sets will be live interactive sessions.

- An annual business meeting is required in our by-laws, so we will be conducting this virtually in a live session.

*Continued on next page*
● Other sessions potentially in the works include a presidential team fireside chat, an enlightening awards presentation session, birds of a feather sessions, and others.

As we move past the urgency of the 2021 planning, the Board will consider long term implications of the changing landscape of conferences and association membership.

- Are virtual conferences here to stay?
- Will 2022 travel budgets be diminished?
- Should we continue portions of future conferences virtually in order to allow more people the opportunity to attend?
- How can we provide ongoing professional development opportunities that go beyond a single conference?
- How can we facilitate membership interaction through the year?
- What steps should be taken to enhance ASTE’s recognition and role as a leader in science teacher education?

As always, feel free to reach out to me or any Board member with ideas, concerns, or just to say hi and check in. We are honored to serve you as YOU are the Association and we value each of you!

Take care & see you in January, and remember to vote for ASTE officers, as the leaders of ASTE set the direction of your organization and your input is valued. The election closes Nov. 24th.

Gil

Maximize Your NSTA Membership: A Meeting with the NSTA President

This is a private web seminar for professors and pre-service teachers who are using NSTA as their textbook this semester. Action - Invite a colleague to attend if he/she is interested in learning more about this opportunity and how to implement it within their university classroom in the spring semester.

Date/Time:
Tuesday, November 10, 2020, from 7:00 - 8:00 PM ET

Link to Zoom:
https://zoom.us/j/91865177254?pwd=blhITjdsUUJmcER4NmJsYWd4U3Bndz09

Background:
Professors at over 60 universities are using NSTA as their textbook this fall. Over 1,700 pre-service teachers are participating as new members of NSTA. The students are spending hours on the NSTA website building their libraries, growing their professional network by posting on the forums, creating/sharing collections with peers, attending web seminars to experience professional learning, and using NSTA resources like the Interactive Ebooks+ Professional and Daily Do lesson plans to enhance their content and pedagogical knowledge. All this happens while learning about NSTA and its benefits.

Submitted to the ListServ by Debi Hanuscin
Getting to Know Bob Hollon, PhD

By Kate Popejoy, PhD
ASTE Executive Director

Most of you know that Dr. Bob Hollon stepped down as ASTE Executive Director on January 11, 2020 at our annual meeting in San Antonio, TX. Many of you interacted with Bob over the ten years he kept all of us organized and moving forward as an organization. But, how well do we know Bob in his life outside of ASTE? I decided this was a good time to help all of us get to know Bob better, so I asked him lots of questions about his life and plans for the future.

First, Bob may be retired, but he isn’t going anywhere! Bob will still attend our annual meetings, whether they be virtual or face to face, as he has since his first ASTE meeting in 1995. When I asked Bob what he liked most about being Executive Director, he replied, “The people!” He went on to say, “ASTE members are genuinely passionate about science education. The sense of community that pervades the organization is something I found lacking in other professional arenas unless I drilled down to a specific interest area. And, people say please and thank you.” Bob got to know some of us very well, especially conference chairs and Board members. He also had the pleasure of watching graduate students grow into their professional identities and take on ASTE leadership roles.

Like many of us, Bob was first hooked into our organization by a friend and colleague, George Davis, who was doing a phone campaign to contact everyone in the North Central region with science education listed as their campus job. Then, in 2011, after writing the conference program for the 2011 Minneapolis Annual Meeting, past ASTE president Jon Pedersen approached Bob about stepping into the Executive Director role. These last ten years have served as a capstone to a successful career as a science educator. Bob started out at SUNY Albany in secondary science education, with technology as a parallel interest. He then moved on to the University of Wisconsin Madison, before ultimately landing at the University of Wisconsin Eau Claire for 20 years. He taught in a secondary science teacher education cohort model in Albany and Madison, and developed technology application courses with a cognitive psychology focus. He co-wrote an NSF grant focused on mapping secondary science teachers’ thinking as embedded in classroom practices, and continued work on exploring the role of teacher leadership at the building level. When he moved to Eau Claire, he added elementary/middle grades science education to the mix. He taught elementary and secondary methods courses, worked to setup and co-direct a Center for Collaborative Leadership, taught leadership courses connected to the center, and

Continued on next page
directed the elementary education program. He also taught assessment, research design and evaluation, and did a lot of technology and science professional development grant work with teachers. He worked as the science education consultant for the Wisconsin Academy Staff Development Initiative for five years. That project focused on developing teacher leaders in science, math, and technology education who had skills to work on change processes in their buildings and who also staffed summer PD centers for Wisconsin teachers.

Along the way, Bob developed a wide range of interests, and had lots of cool experiences. He learned to build snow huts and igloos, he became a certified SCUBA diver, and picked up good cooking skills. As a high school baseball pitcher, the St. Louis Cardinals took a (short) look at him. When he was a boy, he wanted to fly jets or head into space, even though the science classes at his very small high school (graduating class of 15 students) were lacking. As a senior, Bob took a new data processing class offered remotely by the local community college. They had a two-way speaker/microphone and an overhead projector with a remotely powered arm that recreated the notes written by the instructor 30 miles away and delivered them to six rural schools.

Bob taught in Michigan, and in Brussels, Belgium (where he was also the middle grades science chair). As a classroom teacher in Michigan, Bob served as union president for his school district. He also coached basketball at both schools. Since he was the bus driver in his very small district in Michigan, he learned to parallel park a school bus! If it has an engine, he can drive it.
While completing his Master’s degree, Bob spent a month kayaking in the Sea of Cortez off the Baja California coast studying wilderness leadership and environmental values and how they translated to remote regions outside the U.S. We may think of Bob as a very deliberate man now, but between his masters and PhD programs, with two weeks’ notice, he left his program, quit his campus job, got a passport, and moved to Europe! However, when he did come back to do his doctorate, he was the first science education graduate student at Michigan State to complete qualifying exams using a computer.

Bob still likes to travel, and gets away with his wife Sue, as often as he can. They like to camp in their motorhome, and they, of course, bring their two Bernese Mountain dogs, Baxter (~110lbs) and Fergus (~115lbs). As Bob, says himself, “They are poorly trained – sort of by design since I am also poorly trained.” Perhaps one day Baxter and Fergus will make an appearance at our annual conference.

When I asked Bob about what he’d like to see us accomplish as an organization, he mentioned that ASTE members are involved in many efforts to influence policy, and we partner with NSTA on some projects, but as an organization, we struggle with having a strong, visible voice in science teacher education policy. Perhaps, we should consider that as our charge from Bob. In the meantime, he’ll be spending a lot of time in the air, piloting his Challenger experimental tandem 2-seater plane above the skies of Wisconsin.
ASTE Elections Committee
Contributed by Rita Hagevik and Amanda Glaze-Crampes

ASTE elections will run from October 1, 2020 through November 24, 2020.

The slate of candidates is listed below. The ballot and candidate background information are available at https://theaste.org/members/elections/. You must be a 2020 member and logged in to view the information and to vote. All members please be sure to vote - YOUR vote counts!

**President (1)**
Ian Binns
Rommel Miranda

**Board Member at Large (2)**
Xavier Fazio
Allan Feldman
Vanashri Nargund-Joshi
William Veal

**Elections Committee (2)**
Matthew Perkins Coppola
Helen Meyer
Cassie Quigley
Jeanna Wieselmann

**Graduate Student on the Board (1)**
Leiflyn Gamborg
Alexis Riley

Questions should be directed to the chair, Rita Hagevik at rita.hagevik@uncp.edu or chair-elect, Amanda Glaze-Crampes at aglaze@georgiasouthern.edu. Technical difficulties should go to John Rhea at des@theaste.org.

Happy voting!
The ASTE Elections Committee
In order to encourage ASTE members to share ideas and start conversations that we hope will continue online and in person, the Newsletter Editor invites ASTE members to write a Newsletter Op-Ed piece about something they are passionate or curious about and want to share with the rest of ASTE. I hope this begins a conversation that can be continued via the ListServ, Facebook, and/or Twitter.

If you would like to contribute your own piece for future issues, submit it to us via Newsletter@theaste.org.

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**Member Op-Ed**

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**STEM Curriculum Apprenticeship for Preservice Teachers**

By Brittany Acevedo, MAT; Brooke McHanon, MAT; Dieuwertje “DJ” Kast, MAT, EdD

Elementary teachers face accountability measures that focus heavily on reading and math, often to the detriment of instructional time allotted for science (Dani, Hartman & Helfrich 2018; Schneider et al., 2007). There is a need for higher education institutions to provide elementary preservice teachers with content and science experiences that will increase their interest, attitude, and self-efficacy toward science teaching (Bracey, Brooks, Marlette, & Locke, 2013). Curriculum writing apprenticeships offered by the University of South California (USC) Joint Educational Project STEM Education Programs provide a foundation in STEM pedagogy practices which include the 5E format, inquiry-based and hands-on teaching philosophies, new medical literacy and technology incorporation, and Next Generation Science Standards. The curricular apprenticeship was created by Dr. Dieuwertje “DJ” Kast. DJ is a science communicator and JEP’s Director of STEM Education Programs who applied what she learned in her STEM pedagogy and Teacher Education courses to her STEM Education work—specifically her own courses and dissertation research with Rossier professors Dr. Anthony Maddox and Dr. Fred Freking. She recruited preservice teachers to serve as curriculum developers and create content for Wonderkids, a program that focuses on STEM literacy and STEM careers, and the Medical STEM Program, which translates medical and cancer related topics to elementary school audiences. Two preservice teachers from last year are Brittany Avecedo and Brooke McHanon. Their work has been beta-tested with students and the write-up of the
In the Spring of 2015, I was introduced to DJ Kast and her mission to create and maintain STEM programs that target K-5 students in Los Angeles Unified School District (LAUSD) to increase their exposure and access to high-quality STEM instruction early on in their educational careers. As I obtained my B.A. in Psychology and Sociology from USC's Dornsife College of Letters, Arts, and Sciences, I served as the primary instructor for 12 different science units within the Wonderkids after-school program at Lenicia B. Weemes Elementary. In the Fall of 2018, I began the USC Rossier Master of Arts in Teaching program to pursue a Multiple Subjects Teaching Credential. I was recruited to participate in a cancer education curriculum apprenticeship funded by USC’s Norris Comprehensive Cancer Center (NCCC). I first served as an instructor at Foshay Learning Center in which I co-taught units of Microbiology, Laboratory Science, and Pharmacology to a diverse group of K-3 students. In the Spring and Fall of 2019, I further assisted in the creation and material management of 4 units within the cancer education curriculum: Nanotechnology, Biomedical Engineering, Bioimaging, and Ophthalmology. Each unit consisted of 4 lesson modules that included accompanying literature, hands-on activities, and the final module in each unit is a presentation from a guest speaker currently working in that field of study.

My participation with the apprenticeship was motivated by two factors: (1) the alignment of the program’s goals with my teaching philosophy to address educational inequality for low-income students of color, and (2) my personal agenda to spread cancer awareness. Growing up as a Latina in a low-income community in the early 2000s, I witnessed scarce opportunities for science exploration. My relationship with science throughout my elementary and secondary education was rooted in fear and disengagement. I was overwhelmed by the concepts presented in the classroom, I had little interest in the subjects as I believed that there was a disconnect between science and my everyday life, and I couldn't picture myself pursuing a career in science. Teaching in Exposition Park has helped me understand that my childhood science experiences are widespread in low-income communities and my role as an elementary school

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teacher is instrumental in combating these perpetuated science experiences, especially for female students of color. Participating in the creation of this cancer education curriculum is my response to addressing the needs and interests of the diverse learners I serve. Since the cancer education curriculum encourages open discussions about the biological and social ramifications of cancer and introduces new perspectives that may ultimately entice young students to consider a future career in the sciences, my dedication to the apprenticeship was solidified.

The design of the cancer curriculum requires Blended Learning as the California Common Core State Mathematic and English Language Arts Standards (CCSS), Next Generation Science Standards (NGSS), and ISTE Standards are addressed in each lesson module. Writing the curriculum while in the Rossier program provided me an avenue of creativity within my science practice as all modules are rooted in inquiry, problem-solving, and collaboration with the primary goal of increasing students’ interest and engagement in cancer science. I approached the NGSS standards in authentic ways that are experiences, skills, not only culturally responsive to the students in Exposition Park, but I impelled myself to focus on the development of New Media Literacy skills and Information Communication Technology skills as they are valued in modern science workspaces. According to Henry Jenkins and others (2006), “the greatest opportunity for [fostering new media literacies and the emergence of a new participatory culture] is currently found in afterschool programs and informal learning communities” (p. 4). This cancer education curriculum and the collective efforts of all involved educators is intended to close the Participation Gap, “the unequal access to the opportunities, and knowledge that will prepare youth for full participation in the world of tomorrow” (Jenkins et. al, 2016, p. 4). Several modules in the curriculum were carefully crafted to provide access and introduce students to current technologies used to detect and treat cancer, and included products dedicated to helping students acquire the media and technology skills needed to become full participants in our society.
For example, simulation, the ability to interpret and construct dynamic models of real-world processes, is a recurring product in the modules. Within the Bioimaging Unit, students simulate the various roles of a radiologist as they are expected to evaluate and interpret transparent MRI and CT Scans using a lightbox to diagnose their “patients” with “tumors” and “cancer.”

Being a first year teacher and participating in the development of this cancer education curriculum has improved my planning and teaching practice. There is often a misconception that elementary teachers are not interested in teaching science because little time is allotted to the subject in a typical school week, however, creating blended learning opportunities are effective ways to integrate new topics in the classroom. It’s been a valuable experience to witness students that are engaged and always excited to tackle a new field of science and have already expressed their interest in a career in science.

![Image](image_url)

“Implications for your career”

Reflection on Apprenticeship
Author: Brooke McMahon, MAT 2020

I have been working for the wonderful program called Wonderkids for the last few months. Under the program's mentorship, I have been working on developing a science curriculum for second grade students. We are trying to take difficult concepts that are hard to grasp even for adults and make them accessible to 7- and 8-year olds. The most recent topic we have been working on is metastasis. The average American would find it difficult to define this word. Some would probably know that it refers to the spread of cancer; some will have an intense emotional connection to this word. For second graders, some of them may not even know what cancer is. To attempt to tackle this topic, we broke it down into four parts for our students.

![Image](image_url)

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First, we taught students about the lymphatic system - a system commonly not discussed until upper level Anatomy courses. We then had students create their own lymphatic system with beans representing lymph nodes. Our next lesson looked directly at metastasis. We created a life-size cardboard human to have a physical model for our students to observe. The cardboard human activity demonstrated how cancer cells that initially form in the upper left lymph node travel throughout the body. Through the use of hydraulics, the food coloring that signifies the cancer moves from one lymph node to another and eventually throughout the entire body. We chose this method because it allowed students to easily visualize the process that's going on. While it is not the most accurate or perfect model, many students found using the syringes very engaging and interesting. In the final lesson, a guest speaker shared with students information about tumors through an ice pack activity. This activity—inspired by Dr. Martin Kast of the USC Norris Comprehensive Cancer Center—uses 40 cold ice packs but only one frozen ice pack. The frozen pack represents the cancerous tumor amidst many health cells. It shows how easily cancer cells can be disguised, as well as suggesting how doctors detect cancer—i.e., by identifying hard nodules.

The experience with working with the STEM programs and DJ has been extremely impactful for my career. I am getting a deeper understanding of the science that elementary students are currently being exposed to in public-school systems. I have also seen the potential for content that we can expose students to. As I start my career, I have a better understanding of the knowledge base my students are coming into my classroom with. The opportunity to develop an interesting and exciting curriculum has shown me what I am capable of and what is possible in my classroom. I can incorporate my life experience and my students’ experiences to make science more interesting and engaging. I am excited to carry what I have learned with DJ into my classroom in order to create an amazing learning environment for my future students.

Continue the conversation

using the hashtag #TheASTEOpEd

on Twitter, Facebook, and the Listserv

Have a topic you are passionate about and want to bring to the attention of the ASTE community?

Submit it to us via the Newsletter@theaste.org.

Continued on the next page
Regional Updates

Note: We know that things are changing due to Covid-19; please check with conference organizers with questions about a particular conference.

International Region
The International Region of ASTE is hoping to participate in EASE 2020, which has been rescheduled for February 3-6, 2021 and will take place at Kyungpook National University in Daegu, Korea. The theme of the conference is ‘Challenges of emerging technologies in science education’ and the keynote speaker will be Marina Milner-Bolotin from the University of British Columbia. For more information about the conference, visit http://www.ease2020.kr

If you would be able to attend the EASE conference and are interested in participating in an ASTE International Region symposium, please contact Chris Tippett at ctippett@uottawa.ca and indicate your preference for one or more of these themes: a) climate change education (although framed more generally), b) standards based science teaching, or c) science identities.

Southwest Region (SWASTE)
The Southwest region of ASTE made the difficult decision to forgo our annual conference this year for the health, safety, and well-being of our membership. We did invite the region’s graduate students to submit 5-minute graduate student showcase videos describing their future, ongoing, or past work. ASTE members can view these submissions on our region’s website at https://sw.theaste.org/south-west-aste-regional-meeting/swaste-2020-graduate-student-showcase/. We look forward to meeting in person in the fall of 2021 at Sam Houston State University! Stay up to date with SWASTE at https://sw.theaste.org/.

Southeastern Region (SASTE)
SASTE hosted a virtual conference with over 100 participants and 25 sessions on Saturday, October 3rd.

The following awards were presented:
Deborah Tippins Mentor Award: Dr. Christine Lotter (University of South Carolina)
Eddie Griffen Memorial Award for Outstanding Graduate Student Position Paper: Ms. Amber Adgerson (University of South Carolina), Title of Paper: Utilization of Executive Functioning Skills to Address Black Male Achievement in Science

Dr. Melanie Kinskey, an assistant professor at Sam Houston State University, will be the President of SASTE for the 2021 year! Voted in as President-Elect during the SASTE business meeting on October 3rd, Dr. Shana Lee will be joining the SASTE Leadership team! She is the Director of Educational Outreach and Students Programs at Bagley College of Engineering, Mississippi State University and has recently served as the graduate student president-elect and president (2018-2020) for ASTE.

Contributed by Jennifer Mesa

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North Central Region

On October 2nd, the North Central regional held a synchronous virtual conference. More than 60 people registered for the event that featured 16 presentations on a wide variety of topics. We enjoyed social time through break out rooms in which we got to know new people from the ASTE membership. During the event, Sarah Voss of Drake University was awarded the Davis-Foster Graduate Student Paper Award for the paper titled "Comparing Student Responses to Convergent, Divergent, and Evaluative Nature of Science Questions."

Submitted by Jerrid Kruse

Mid Atlantic Region

It is my pleasure to share 21 awesome asynchronous VoiceThread presentations that were created by 46 amazing MA-ASTE presenters! Click on the following link to view their exceptional work for free in the 2020 MA-ASTE Virtual Conference Program! Also, please feel free to ask presenters specific questions or leave comments directly on their VoiceThread presentations! Have a wonderful day!

https://ma.theaste.org/2020-ma-aste-virtual-conference-program/

Submitted by Rommel Miranda

Far West Region

The Fall 2020 (Virtual) Far West ASTE Regional Meeting will take place on Friday November 13, 2:00-4:30pm (Pacific Time). Please contact Corinne Lardy (corinne.lardy@csus.edu) if you are interested in attending and/or presenting.

Submitted by Corinne Lardy

For updates check the regional websites here
Northwest Region

The Northwest region will be holding a virtual meeting and unconference December 15th from 2-6PM Mountain Time!

We’re excited to share that we are leveraging airmeet.com to host interactive round table presentations - our call for presentations is now open. Presenters will be grouped and placed at thematically-related tables while participants will have the opportunity to “hop in/out” of rooms and/or self-organize at several open-tables. We have the ability to host several hundred participants at our FREE event!

Visit https://nw.theaste.org for details or register directly http://wycsx.org/nwaste-aste-submit

Submitted by Mike Borowczak

New Resources

Don Haas and Eric Pyle have a chapter in this new book, which came out initially in April, and in print over the summer: https://www.routledge.com/Teaching-Climate-Change-in-the-United-States/Henderson-Drewes/p/book/9780367179472

The volume as a whole would be of interest to our membership.

Submitted by Eric Pyle

The National Environmental Education Foundation (NEEF)

The National Environmental Education Foundation (NEEF) is a non-profit organization chartered by Congress to build effective public-private partnerships and develop programs that advance environmental education and engagement in the US. NEEF's mission is to make the environment accessible, relatable, relevant, and connected to the daily lives of all Americans. Greening STEM is NEEF’s approach to STEM learning that promotes hands-on, place-based investigation that uses the environment as a context for learning.

https://www.neefusa.org/education/greening-stem and/or https://www.neefusa.org/education/resources
Call for GSF Leadership Self-Nominations
We are excited to announce the call for self-nominations for the ASTE Graduate Student Forum officer positions. Election of new officers will occur during the graduate student luncheon at the upcoming ASTE conference. There are two opportunities to serve as a GSF officer:

- **President-elect**: Two-year commitment; help the President plan and lead conference sessions; maintain regular communication with graduate student members of ASTE; serve as President in second year of term.
- **Vice President**: One-year commitment; support the President and President-elect in planning and leading conference sessions and communication efforts.

Detailed position descriptions and eligibility information can be found [here](#). The deadline for self-nominations is December 1, 2020. Nominate yourself [here](#).

Please note that our GSF elections will take place at the Graduate Student Forum Business Luncheon. You can sign up to attend the luncheon when you complete your [online conference registration](#). This luncheon is open to any ASTE members who would like to attend, but voting will be restricted to graduate students.

ASTE 2021 Graduate Student Forum Sessions
We will be offering a variety of graduate student sessions in San Antonio. Look for a flyer at the on-site registration desk for more information (including times and locations) about the graduate student sessions!

- Graduate Student Forum Business Luncheon
- Three Minute Thesis® Competition
- Graduate Student Workshop: Preparing for the Workforce
- Graduate Student Forum Meeting

Graduate Student Recognition
Have you or a graduate student you mentor reached a significant milestone this year? We want to recognize the important work being done by ASTE’s graduate student members. Being accepted to present at a conference for the first time, passing preliminary exams, publishing, having a successful defense… we want to hear it all! Share graduate student achievements for inclusion in future newsletters using [this form](#).

Thank you for supporting ASTE graduate students!

Make sure to like the [ASTE Graduate Student Forum Facebook Page](#) and follow us on Twitter (@ASTE_GradForum).

Leiflyn Gamborg - President, Graduate Student Forum (lgambo1@lsu.edu)
Regina McCurdy - President-Elect, Graduate Student Forum (regina.mccurdy@ucf.edu)
Heather Lavender - Vice-President, Graduate Student Forum (heatherl@lsu.edu)
Katie Green - Graduate Student Board Member (kegreen4@ncsu.edu)
How was your experience with teaching science online?

What support did you offer to your pre-service teachers as they moved to remote instruction?

How are your pre- and in-service teachers making use of digital resources to support remote and blended instruction?

This year has brought so many questions about teaching and learning science and its intersection with technological tools.

CITE Science is the perfect place to share your research, completed and emerging, with the others as we all stretch our teaching and research into new areas.

We 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, we encourage authors to embed interactive technology in the manuscript (e.g., links, video, audio, animation).

This journal is sponsored by ASTE, and we would like to feature ASTE members’ work!

Link: [https://citejournal.org/category/science/](https://citejournal.org/category/science/)

Follow the Submissions tab at the top right of the page.

Contact the Co-Editors with any questions:
Andrea Burrows - Andrea.Burrows@uwyo.edu
Helen Meyer - Helen.Meyer@uc.edu
We are pleased to announce that Volume 5, Issue 4 of the Innovations in Science Teacher Education journal is now available at: https://innovations.theaste.org/publication/volume-5/issues-4-20/

We are also extremely thankful for our dedicated editorial review board members who always provide insightful comments and suggestions to authors!

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

For author guidelines for submitting a manuscript to the Innovations journal, please visit the following webpage: https://innovations.theaste.org/submit/instructions-to-authors/

If you have any questions regarding the Innovations journal, please contact the editors: Rommel Miranda (Rmiranda@towson.edu) or Ron Hermann (Rhermann@towson.edu).
Phone-a-friend Facebook Questions

Jaime Lynn
Hi Teachers! I'm an instructional coach at a K-8 school. We're purchasing new science curriculum for all grades this year and am wondering if you have a favorite curriculum and why you like it? Or ones to avoid? Thanks so much for your feedback!

Ian Binns
Hello friends! I hope everyone is doing well. I'm looking for simulations, animations, apps, etc. that I can use in a 5E lesson on vaccines, herd immunity, community spread, etc. I want to use this in my elementary science methods course in a few weeks, so I’d love to learn about resources that are useful for the elementary level. Thanks!

Keith G. Ginsberg
Very useful educational resources for parents.

Laine Farber
Anyone looking for an additional resource to share with students on how to discuss and address the issue of racism and prejudice in the scientific community, check out the newest episode of Nature Nerds. It highlights the achievements and experiences of a black scientist and was crafted by a team of educators and artists. Link

Norman T. Price
Eager to see lesson templates or hear how teachers are structuring an 80 min distance learning lesson to blend synchronous and asynchronous elements. I am interested in models for use in Middle school science. Do you have ideas about how best to use a long block online?

Interesting Opportunities

Valarie Akerson
If anyone knows someone interested in an online EdD program, we would be happy to chat with that person!
Eric Pyle
On behalf of Dave Mogk and colleagues:
Dear colleagues,
The U.S. National Committee for the International Union of Geological Sciences (IUGS) is presenting the America’s Geoheritage II: Identifying, Developing, and Preserving America’s Natural Legacy Distinguished Speaker Webinar Series throughout fall 2020, many Tuesdays at 11:00 am EDT. These presentations will introduce the underlying rationale and concepts of the Geoheritage initiative, and the contributions that are being made by numerous stakeholders in the geoscience community. These events are free and open to everyone interested in using Geoheritage sites to promote research, education, public outreach, community planning, and geotourism. These presentations will set the stage for the virtual writing part of the workshop that will be convened the week of January 10, 2021 to further explore opportunities to develop and promote Geoheritage sites across the United States.
For a complete list of webinar dates, topics, and speakers in the series and to register for each individual webinar, please see the flyer or visit this link.

Jaime Ure shared a post.
Caduceus International Publishing Inc.
Students who #selftest before a quiz, test, or exam tend to do better than those who don’t.
For students looking for more flexibility on their path to education, an online degree can provide them with an ideal solution.
Completing quality online health science programs during college helps students learn efficiently without sacrificing course effectiveness.
Learn more at this link

Teri Tillotson Eastburn shared a post.
In need of #EnvironmentalScience teaching resources? They’re here, free for the taking from Univ. of Colorado Boulder Env. Studies! Public domain. http://ow.ly/DII250BslRs
In Memoriam: Amity Gann

I write to you today to deliver some heartbreaking news. Those of us who knew Amity personally know that she had cancer for the last five years. I regret to inform you on September 22 Amity passed away. She fought hard to stay here with us and her memory will live on anytime we choose to fight for a just and equitable system for our students.

Amity Gann earned her PhD at Temple University's College of Education. She was involved in research projects on attitudes and outlooks of preservice elementary teachers towards science teaching, development of noticing skills of preservice middle grades science teachers, and teacher residency program efficacy. As both a former biologist and middle grades teacher, she was interested in understanding how content area specialists learn to interpret and respond to student thinking.

She defended her dissertation, Development of Noticing Practices in Preservice Teacher Residents, on June 5, 2019. Prior to living in Philadelphia, she was a teacher in Seattle Public Schools where she proudly provided differentiated instruction in middle school science classes. She had a wide range of biological research experiences that she incorporated into the planning and implementation of her science classes, resulting in a large repertoire of authentic scientific experiences for her students.

In addition to her research on pre-service elementary teacher attitudes towards science and her doctoral work on professional noticing practices in preservice teacher residents (math and science), she was also an instructor of record for Temple's middle grades science methods and secondary math and science student teaching capstone seminar (TUteach). Her particular specialty was addressing teacher engagement with student thinking about content. Her work was informed, to some extent, by Ambitious Science Teaching and Culturally Responsive Teaching.

Amity was active in our ASTE community as a grad student, as a volunteer, and as the co-editor of our newsletter since January 2020. She was a vital part of the previous three issues of the newsletter and her memory will be continued in the segments she helped develop and start. She is survived by her wife, Rebecca. In lieu of flowers, please make a contribution in Amity’s honor to Mount Holyoke College or the Temple College of Education and Human Development.

Her published work and articles can be found here: https://scholar.google.com/citations?user=8Oaa4bwAAAAJ&hl=en

Contributed by Jenn Oramous
Hello all! I bring you the latest installment of the newsletter and hope you find it informational and entertaining! It was a sad undertaking this issue because of the loss of my co-editor, Amity. I look forward to continuing to serve in her honor and memory. Remember, any time we take on the work of social justice in and through education we all honor her memory.

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.

Issue items due by:

Spring May 15
Summer Aug. 15
Autumn Oct. 15
Winter Feb. 15

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**: "Talk is cheap, voting is free; take it to the polls." - Nanette L. Avery

**Community Engagement Challenge**: Share a picture of your favorite way to support science in these COVID times! Mine is to wear my mask! And caption it:

Supporting Science in the age of COVID
#ASTENewsletter