

# FOUNDATIONS

NEWSLETTER OF THE GEO2YC DIVISION OF THE NATIONAL ASSOCIATION OF GEOSCIENCE TEACHERS  
*Volume VII, Issue IV: December 2018*

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## In this issue:

- Early Career Workshop
- President's Column
- 2018 Outstanding Adjunct Faculty Award – Mariah Tilman
- SAGE 2YC at AGU
- 2YC Awards at AGU VPS
- Opportunities and Announcements
- Geo2YC pencil photo
- Geo2YC at GSA
- Members Gallery – wow!

## Early Career Workshop

**By Kaatje Kraft**

*Whatcom Community College  
Bellingham, WA*

The Early Career Workshops is celebrating its **25th year** since it started! Throughout the years, Two-year college faculty have attended this workshop along with their 4yc/u counterparts to help gain a social network of like-minded peers, learn about strategies for instruction in the classroom, and think about how to structure your time outside of the classroom. This year should be no exception to the usefulness and quality of workshop time (workshop dates are from 28 July to 2 August). As the 2yc representative for this workshop, I'd love to have some early career 2ycers to meet, get to know, and learn from! Please consider applying if you're in your first three years as a tenure-track faculty in a geoscience position. Please encourage your new hires to attend. There are funding options to offset the costs if travel costs are an issue. The workshop is in Maryland and the **application deadline is March 24th, 2019**. For more details and to apply, please visit the site:

<https://serc.carleton.edu/NAGTWorkshops/earlycareer2019/index.html> 

## President's Column

**By Joy Branlund**

*Southwestern  
Illinois College,  
Granite City, IL*



Here I am writing my first Geo2yc President's column! I apologize for My over-explaining writing style that's mostly devoid of three-syllable words. You see, these days I write only for my students. I'm sure many of you, my 2yc colleagues, are the same. We employ our creativity to explore new ways to reach students, finding something that works great only to learn that Generation Z students are not like the Millennials we figured out, so it's back to square one. Because I've spent most of my creative capital on students, I need whatever bits of inspiration you can spare to help navigate the Geo2yc ship. Where should we go? How can we keep you engaged along the way?

Group discussions at our Geo2yc business meeting explored both what our division does well (hooray to the Outstanding Adjunct Faculty Award and the quarterly newsletter!) and how it could better serve our members. Ideas included creating and posting webinars (about what? engaging adjuncts? online teaching? applying for grants without a grants office?), fostering online discussions of Geo2yc teaching issues, and hosting regional meetings. Please contact me directly with your input and ideas ([Joy.Branlund@swic.edu](mailto:Joy.Branlund@swic.edu)).

We want to make sure that you are engaged with the Geo2yc Division to the degree you wish to be. Here are ways to be involved:

- Renew your membership
  - Nominate yourself or your favorite adjunct/part-time instructor for the Outstanding Adjunct Award
  - Submit an article and/or photo to the newsletter
  - Serve on a committee or in a leadership role.
- Fill out the form at:

<https://nagt.org/nagt/about/involved.html>

Thank you, in advance, for contributing to our Division! And while I'm on the subject of gratitude, I want to thank **Callan Bentley**, who demonstrated strong leadership as President and will be a valuable resource as Past President. We welcome **Jackie Hams**, as the new Vice President, and **Suki Smaglik**, the newly elected Newsletter Editor (although she's been doing the job unofficially all of last year). Thanks also to **Chris Johnson** (Webmaster), **Wendi J. W. Williams** (Secretary/Treasurer) and **Peter Berquist** (Archivist) for their continued service. 🏔️

## 2YC dominates AGU Virtual Poster Session!

By **Joshua Villalobos**

*El Paso Community College  
El Paso, TX*

At this year's annual American Geophysical Unions meeting in Washington D.C. students from diverse backgrounds and institutional settings were given the opportunity to highlight their scientific research...virtually! AGU's Virtual Poster Showcase (VPS) offers students who cannot attend the meeting to gain the formative experiences of presenting their scientific research and receiving valuable feedback from community leaders and experts all while presenting from their home institution.

This year in the Undergraduate Showcase Awardees first, second, and third place winners were all community college students! First place went to Prudence Crawmer, a Sophomore from Pikes Peak Community College for her work entitled "Using CrowdMag to Catalog Magnetic Anomalies from Urban Infrastructure and Geological Features".

Second place went to Cynthia Tong, a Junior from the Southern California Earthquake Center for her project entitled "Predictive Skill: A Study of RSQSim and UCERF3 Using the Bayesian Inference", and third place went to Zenja Seitzinger, from Monroe Community College in Rochester, whose project was titled "Geophysical Analysis of the Three Sisters Outcrop Located in El Paso, Texas".

Zenja was a participant in the NSF funded UTEP-ROCCS (University of Texas at El Paso - Research Opportunities for Community College Students) REU (Research Experience for Undergraduates) program at University of Texas at El Paso and El Paso Community College. The REU summer program is the first REU geared to provide research opportunities exclusively for community college students. Participants study geologic issues within the El Paso region through a variety of field and laboratory experiences and are mentored by UTEP and EPCC faculty and student mentors throughout the summer with presenting their projects at meetings as their final requirement.

These awards and the outstanding students who received them are shining examples of what our community college students can do when given the opportunity and the proper mentoring! So keep an eye out for these programs for your students and if your students are conducting a research project and you're interested in having your students present at next year's AGU's Virtual Poster Showcase please visit

(<https://education.agu.org/virtual-poster-showcase/>).



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**Doing research  
this summer?  
Present your  
research online.**

**Abstracts open July**





ROCCS participants Zenja Seitzinger and Sarah Gillman from Santa Barbarao CC in the field during the ROCCS program in 2018. Photo by Joshua Villalobos

## Outstanding Adjunct Faculty Award: Call for nominations

If you have a colleague who inspires you to try new teaching strategies, who shares innovative classroom assignments, who makes a difference in your department, or who simply does an amazing job of encouraging their students and community to engage with geoscience, please nominate them for recognition at: [http://nagt.org/nagt/divisions/2yc/oafa\\_nomination.html](http://nagt.org/nagt/divisions/2yc/oafa_nomination.html).

If you would be interested in serving on the award committee, please contact Karen Layou at [klayou@reynolds.edu](mailto:klayou@reynolds.edu) for more information.

## Congratulations to Mariah Tilman 2018 Annual Outstanding Adjunct Faculty Award Winner!

By Karen M. Layou  
Reynolds Community College  
Richmond, VA

The Geo2YC Oafa Committee is pleased to announce **Mariah Tilman** as our 2018 Annual Outstanding Adjunct Faculty Winner. Mariah was selected from an outstanding group of 2018 Oafa Honorees with votes cast by NAGT members. Mariah's contributions to the geology department at Chemeketa Community College in Oregon were highlighted in the September 2018 issue of Foundations.

In addition to a complimentary annual membership to NAGT and the Geo2YC Division, Pearson Education has generously agreed to provide Mariah with a \$750 stipend to support her professional development, such as attending a regional or national conference, participating in a professional development workshop, or the development of a classroom activity. Thanks to Pearson for their continued support of this award for our adjunct colleagues. Congratulations, Mariah—we appreciate the opportunity to recognize the efforts of our colleagues, and are thankful for all you do. 🏔️



You can now follow us on  
Twitter:

@geo2yc



# SAGE 2YC at AGU

By Beth Wisely  
Casper College  
Casper, WY

I was able to attend 2 workshops (SAGE2YC) at AGU, *COACHing Strong Two-Year College Educators in Strategic Negotiations* and *Building Strong 2-year Geoscience Programs*. The workshops were more exciting and inspiring than I realized they would be, and the leaders were infectious. Not only did I meet new colleagues from all over the country, I also made personal connections with some outstanding people who are as motivated as I am to improve recruiting and retention of future working geoscientists. I left the workshops with a sense of drive and capability, with new ideas for undergraduate research and with potential placements for my students to go for internships and additional research experience. I honestly got more out of the workshops than the technical sessions this trip to AGU!



*Beth Wisely (right) and others participate in a group activity during the Building Strong Geoscience Departments at Two-Year Colleges workshop at AGU in December.*

With the push for a 2-year completion and new limits on financial aid, any "leg up" or opportunity I can offer my students can be a possible life changing event. I look forward to seeing you at the EER in July in Nashville!

# Opportunities and Announcements

## Undergraduate Research Opportunity: STEMSEAS

[STEMSEAS](#) (STEM Student Experiences Aboard Ships) is an NSF-Funded program that aims to provide 6-10day exploratory experiences for undergraduates from diverse backgrounds aboard oceanographic research vessels. Students sail with faculty mentors, and engage in geoscience and oceanography activities while having fun (and experiencing life at sea). Two-year college students are a specific population that this program targets. In 2016, we had two-year college students on all of the excursions, one of which I had the great fortune to serve as faculty mentor and had a significant percent of students on the ship coming from two-year colleges. This project was recently funded for another three years and has a rolling application deadline. Please encourage your students to apply today! To be eligible, you must be a U.S. citizen 18 or over and enrolled in an accredited 2- or 4-year college or university. And if you have any questions about the program, please don't hesitate to contact me, Kaatje Kraft ([kkraft@whatcom.edu](mailto:kkraft@whatcom.edu))

## Ocean Observing Initiative (OOI):

We invite you to participate in an exciting workshop, March 8-13, 2019 sponsored by the National Science Foundation (NSF) and facilitated by Rutgers University. The workshop is focused on the integration of Ocean Observing Initiative (OOI) data into undergraduate teaching of introductory oceanography themes and concepts. We are specifically looking for instructors of undergraduate oceanography courses. *We are inviting you to work with fellow professors to learn about and engage in efforts to bring OOI data into your undergraduate teaching.* Professors from Community Colleges, Primary Undergraduate Institutions (PUI), and Historically Black Colleges and Universities (HBCU) who teach introductory courses (100 and 200 level) with a strong emphasis on oceanography themes and concepts are invited to attend this workshop.



*In previously funded work*, we developed a series of 30 short interactive Data Labs that utilized OOI data to augment teaching of Oceanography concepts. Workshop participants will explore ways to effectively teach with data, share effective practices and hopefully expand their understanding of effective pedagogy, and brainstorm ideas for how to integrate OOI data into Introduction to Oceanography courses.

Each Professor will receive travel, meal and hotel accommodations to participate in the workshop. In addition, a \$300 stipend is available for providing evaluation feedback on student use of the Data Labs. You can read more about the workshop on our [website](#). Please note, there will be other workshops in this series in 2019-2020.

If you are interested in participating, please fill out the [application](#) by January 15, 2019. All information in the application will be kept confidential and is strictly for planning purposes of the workshop. We will notify you by January 22, 2019 of the status of your application. Travel reservations will be made by January 31, 2019.

Thank you for your interest. We are excited to work with you. Do not hesitate to contact me for more information, Janice McDonnell ([mcdonnell@marine.rutgers.edu](mailto:mcdonnell@marine.rutgers.edu)).


## Northwest Scientific Association:

This year's Northwest Scientific Association annual meeting will include a geology theme. The meeting is at Lewis and Clark College in Lewiston, Idaho on March 26–29 (main conference days 3/27–28).

Our Keynote speaker is Brian Atwater, and we have two fine plenary speakers who will follow him, Jim O'Connor and Nick Zentner. While the NWSA is broadly affiliated with AAAS and has been largely dominated by ecologists, botanists, and lichenologists, but we occasionally have geology sessions as we will this year. Check out the details at the NWSA website:

<https://www.northwestscience.org/> The abstract deadline is February 22 in case you are considering a poster or presentation.

## Readers' Geo2YC Pencil Photograph

If you have taken your Geo2YC pencil anywhere this past year, or even have a cool rock formation where you live or work that you can grab a photo of using the pencil as scale, please consider submitting it to the newsletter for publication. Please send a jpeg to the editor [suki.smaglik@gmail.com](mailto:suki.smaglik@gmail.com). Please also include a caption for your image. All we need is an approximate location. You are welcome to give coordinates if appropriate to do so. If you do not yet have a pencil, look out for an NAGT booth at GSA. 



*Under the Geo2yc pencil, the rock demonstrates cross-bedding in the Chuckanut sandstone on Sucia Island that students were using to interpret some of the geologic history of the region. This was taken this past fall on a geology field trip with Bernie Dougan's Physical Geology class at Whatcom CC by Kaatje Kraft*



## Geo2YC Division Meeting at GSA, Fall 2018



*Photos by Callan Bentley,  
Chris Johnson and  
Katherine Ryker.*





# Geo2YC Gallery

The gallery is our creative space. Send a photo, poem, painting, etc. that you'd like to share, to the editor [suki.smaglik@gmail.com](mailto:suki.smaglik@gmail.com). Please also include a caption for your image.

## *The 50 State Fossils* reviewed by Callan Bentley

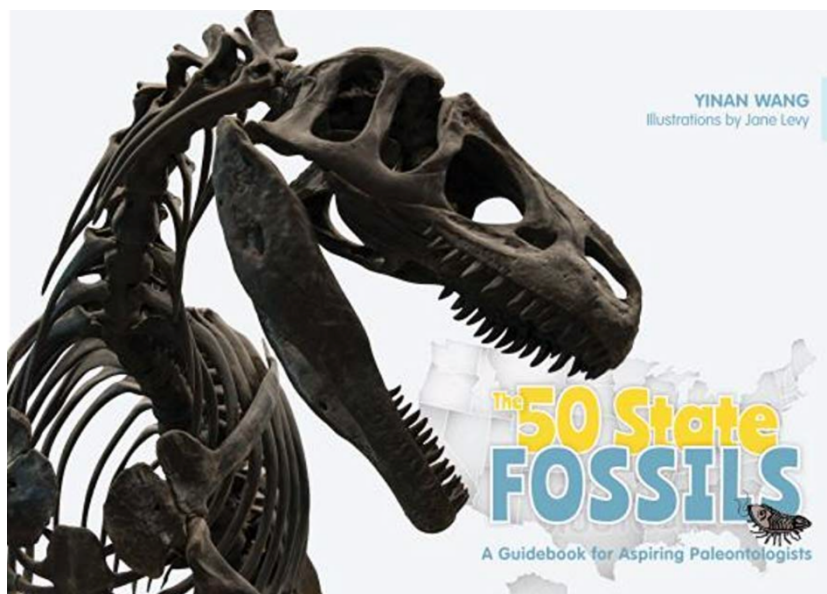
Here's a kid's book to consider for the young folks this holiday season: *The 50 State Fossils: A Guidebook for Aspiring Paleontologists*, written by Yinan Wang and illustrated by Jane Levy. It has a simple structure: each state gets a page, and that page is divided into four parts: a map of the state w/ areas highlighted showing where the fossil can be found, an illustration of the organism as it looked when it was alive, in a cartoony sort of style, a representative photograph of the fossil, and a few paragraphs of text describing the organism, its geological setting, and superlative aspects of its discovery or lifestyle.

Not every state has a state fossil, but Wang rolls with the punches, presenting "state dinosaurs" where they occur, and the (fossil-derived) "state stone" in one case. For states where there are "none of the above," Wang makes suggestions as to what would be an appropriate choice, considering the geology of the state, as well as proposed bills to designate state fossils that never made it out of their respective legislatures. This is a useful compilation of information about the range of organisms which are embraced / celebrated as state fossils.

Duplicates become very apparent when reading through the whole book (as my son and I did on Monday): a lot of states selected mammoths, a lot of others opted for trilobites, and there are a

lot of crinoids, and a *lot* of dinosaurs. The unique choices really stand out: belemnites (Delaware), the Tully monster (Illinois), petrified palm wood (Louisiana), and Jefferson's ground sloth (West Virginia). My own state, Virginia, has the elegant Pliocene scallop *Chesapecten jeffersonius* as its state

fossil for many good reasons. I have a couple of personal connections to the story of that bill, and am pleased that its story is included in the brief description. In 1687, it was the very first fossil from the Americas to be illustrated in the scientific literature. So illustrating it is key to its selection, and



it pains me to say that the photo used to illustrate the fossil appears to be another species in the *Chesapecten* genus, perhaps *C. middlesexensis* or *C. madisonius*. You can count the ribs – *C. jeffersonius* should only have 8 or 9 ribs, but the individual shown in the photo has 12 ribs. I found one small typo too.

These are relatively minor details, and for the intended audience of paleophile children, I don't think they matter in any essential way. I think the book would make an admirable addition to the bookshelves of young paleontologists. My son (6 years old) really enjoyed it, and has gone back to it several times since to leaf through and re-examine the critters. He's particularly taken with *Shonisaurus*, the Nevadan ichthyosaur!



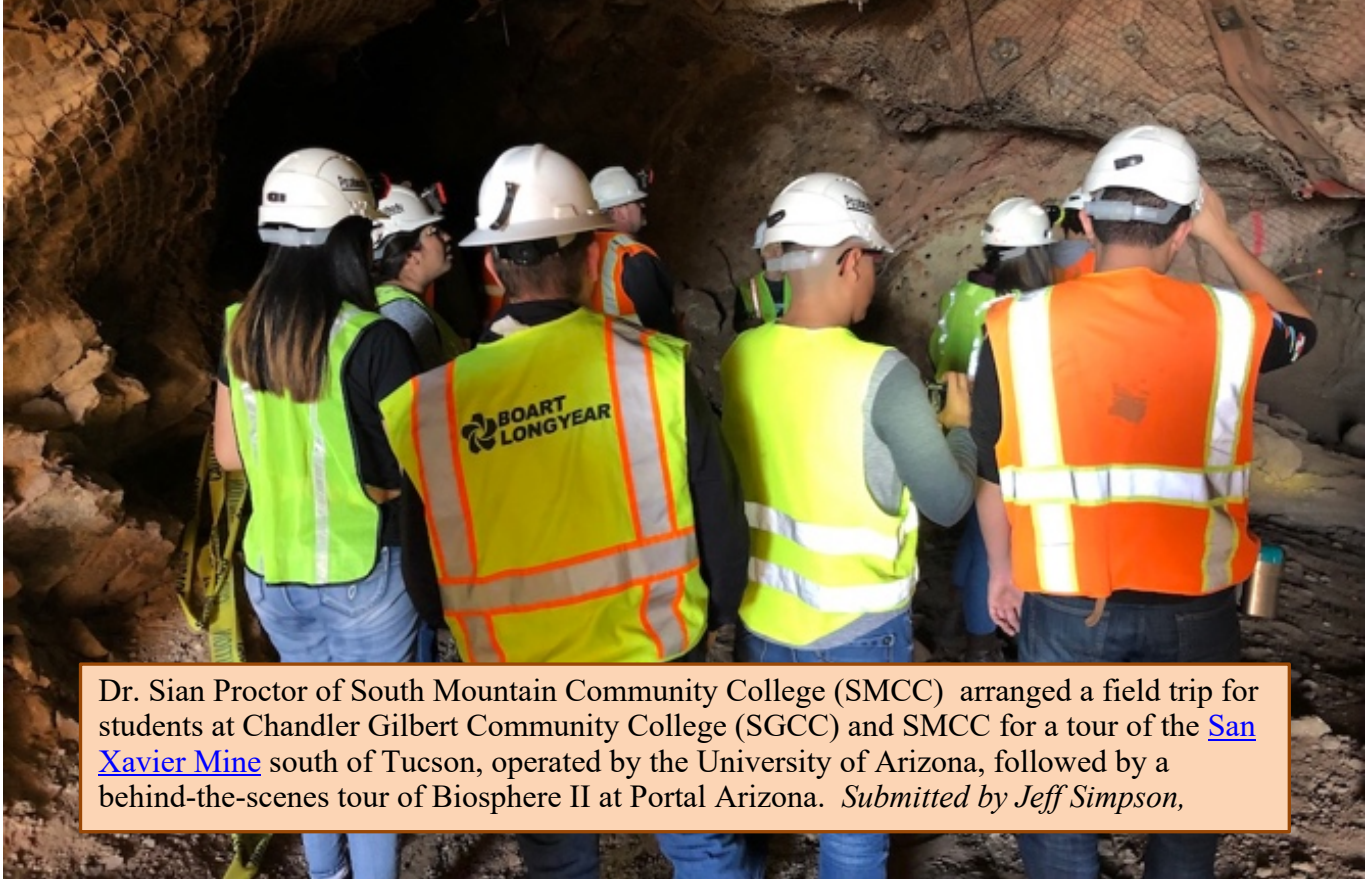
Geo-Launchpad interns were funded by Front Range Community College (FRCC) in Colorado to present their summer projects as posters at the 2018 GSA annual meeting. For all four interns, this was their first experience at a national conference. This was an incredibly valuable experience for the students to see what a national conference is like, practice presenting their work, network with researchers involved in similar projects, and witness the community interest in their work. Geo-Launchpad is an internship opportunity for community college students in Colorado and New Mexico, and is made possible through a collaborative award between UNAVCO, the National Science Foundation's geodetic facility, and FRCC (NSF ICER-1540524 and 1540588). The program is designed to prepare students for an REU program by helping them gain research-ready skills, technical training, career exposure, mentoring, and professional development. From right to left: Jamie Pawloski, FRCC, Grace Donovan, FRCC student, Katie Gallagher, FRCC student, Santiago Cuevas, Arapahoe Community College student, Alexandrea Hurtado, FRCC student, Patrick Shabram, FRCC faculty and PI for Geo-Launchpad. *Photo by Patrick Shabram.*





Garry Hayes, geology professor at Modesto Junior College in Central California, recently got to choose about 60 tons of boulders derived from local outcrops for use in the Great Valley Museum's Outdoor Nature Lab, currently under construction. The rocks included slate and phyllite "tombstone" boulders, marble, quartz gold ore, and Table Mountain Latite. When finished, the outdoor lab will provide a microcosm of the natural environment of California's Great Valley and the Sierra Nevada Mother Lode, with interpretive rock displays, native vegetation, grasslands, and a vernal pool (ephemeral pools that fill only in winter which have unique animal and plant species). The outdoor lab will include a mock paleontology excavation, a greenhouse, demonstration gardens and a "human" sundial. *Photos by Gary Hayes.*





Dr. Sian Proctor of South Mountain Community College (SMCC) arranged a field trip for students at Chandler Gilbert Community College (SGCC) and SMCC for a tour of the [San Xavier Mine](#) south of Tucson, operated by the University of Arizona, followed by a behind-the-scenes tour of Biosphere II at Portal Arizona. *Submitted by Jeff Simpson,*

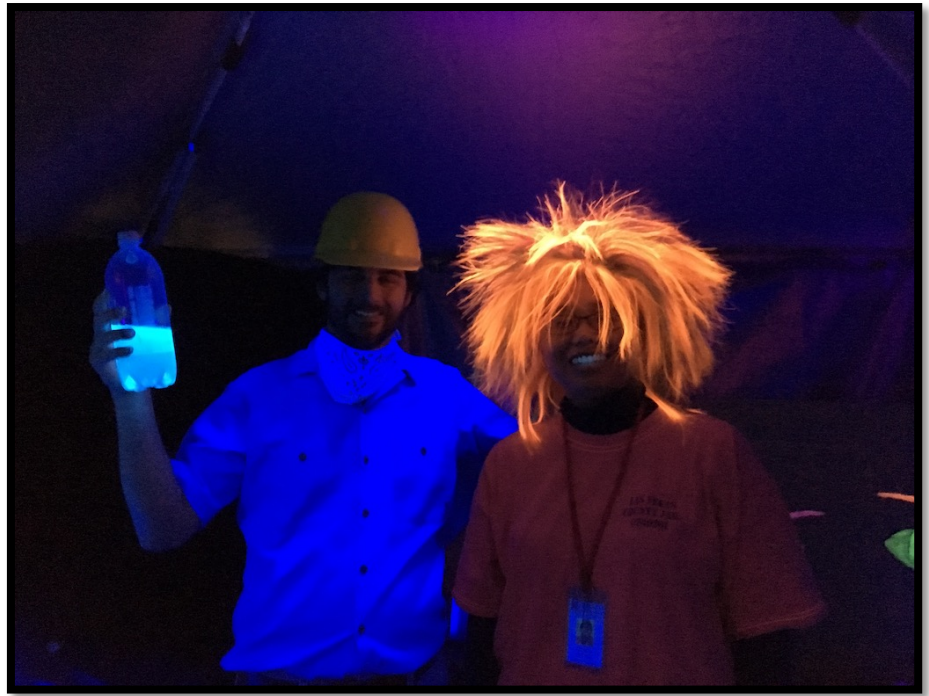




Top: Students from the Centralia College GEOL 102 course (surface processes) explore the enigmatic Mima Mounds in southwestern Washington. These naturally occurring prairie mounds have an unexplained, although heavily theorized, origin. Bottom: Students from the GEOL 101 course get to experience Mt. St. Helen's up close. *Photos by Michelle Harris*







### Trick or Treat for STEM

The Science, Engineering & Technology division and the Math division joined forces in October 2018 to sponsor a Trick or Treat for STEM event at Howard Community College, in Columbia, Maryland. The event was part of a state-wide initiative, the Maryland STEM Festival, which encourages students to take a greater interest in STEM. With an overwhelming community response, over 500 people participated in the event. The geologists built a "Glowing Cave" in the geology lab, featuring fluorescent minerals and dinosaurs painted in fluorescent paint. Other activities included the Hall of Skulls, Math games, Engineering Haunted House, Cadaver lab, and Carnivorous plants in the Greenhouse. Participants made monster toothpaste, slime, and encountered static electricity with the Van der Graaf generator. A great time was had by all, and we are planning next year's event.



"STEM Glow-cave" with Chris Olsen, Physical Science lab manager, and Sharon Lyon, Chair of Physical Sciences.

"Chris And Christine" has Chris Olsen and Christine Chin Choy, Chemistry adjunct professor.

"Glowing Dino-eyes"

*Photos by Sharon Lyon*

Deadlines for future *Foundations* issues. Submit your stories, experiences, experiments, photos, awards, etc. to the editor [sukismaglik@gmail.com](mailto:sukismaglik@gmail.com) any time prior to each deadline.

- Friday, March 2
- Friday, June 1
- Friday, September 6

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