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Schoolyard Field Trips - Asombro's Newest Program

Who says you have to take a bus to go on a field trip? Starting in March, Asombro began delivering our new Schoolyard Field Trip to local elementary schools. This two-hour 2nd and 3rd-grade program takes students out of the classroom and into their fields and playgrounds to discover the wildlife that lives there.

During the Schoolyard Field Trip, students visit stations around their schoolyard to answer the question: could there be Mexican Spadefoot Toads living here? After meeting a live toad and 'racing' through the stages of its lifecycle, students learn the technique of hand texturing to determine if the schoolyard soil is suitable for these amphibians. Students then observe cloud types to assess the likelihood of rain and use infrared thermometers to determine whether there are microhabitats with appropriate temperatures for toads in the schoolyard. Classroom teachers read their class a story about the spadefoot toad and then help students explore what the toads might hear in the schoolyard.

As they participate in stations, each class records their observations on pages that are then assembled into a class book, with space for future soil and microhabitat investigations. Teachers are also equipped with magnifying glasses, infrared thermometers, and other useful items to facilitate future outdoor learning.

Asombro delivered the Schoolyard Field Trip to more than 400 students at four elementary schools this spring. We have received wonderful feedback from students, educators, and administrators. For example, teachers and principals said:

- "The students were engaged and learning at all times."
- "Loved the idea of bringing learning outdoors in all areas of learning."
- "You all are so amazing. The teachers love you, the students love you, and I just love what you give to us year after year. You are always changing what you are doing, keeping it fresh and engaging."



Science Educator Natalie Wells gets students ready to "race" through the stages of a toad's life cycle at the start of their Schoolyard Field Trip.



Students gather close to get a glimpse of Grumpy, Asombro's Great Plains Toad.

The development and implementation of Schoolyard Field Trips were supported by a grant to Asombro from the Lineberry Foundation and a grant to the Las Cruces Public Schools from the NM Public Education Department's Outdoor Learning Startup grants. Based on the success of this spring's programs, we are seeking funding to continue Schoolyard Field Trips next year. We look forward to more toad discoveries with students as the rainy season approaches.

2023 Desert Data Jam

This semester, 339 middle school students from six schools participated in Asombro's 11th annual Desert Data Jam. We challenged students to ask questions and carefully analyze datasets on dust emissions, litter decomposition, and mammal habitat use collected by scientists in our region. Then they developed creative projects (e.g., videos, drawings, songs) that tell the story of the data in an interesting way.

On April 26, the foyer and conference room in NMSU's Wooton Hall, the building of the Jornada Experimental Range, were filled with 54 Desert Data Jam projects. Thirty-seven volunteers scored each project on scientific practices, creativity, and visual presentation. We are proud to announce the top four winners.

First Place: Megan McDaniel, Picacho Middle School

"How Fast Do Leaves Leaf Us?" with crocheted circles depicting leaf litter decomposition rates in three locations.



Second Place: Kate Shankle & Delilah Ruth, Sierra Middle School
"Decomposition Mission" with felt circles showing decomposition rates in three locations.

Third Place (tie): Avery Liefeld & Tian Tian Gong Song, Sierra Middle School
"It's Blowing Dust" with homemade snow globes showing dust amounts by season.



Third Place (tie): Soraya Kamali & Nilasha Basnyat, J. Paul Taylor Academy
"Mammals in the Court" with a Law-and-Order themed video showing mammal detections in two habitats.

Meet Marissa - Asombro's New Science Educator

Marissa joins the Asombro team from Holland, Michigan where she was born and raised. She grew up catching garter snakes and observing monarch butterflies on milkweed, later inspiring her to attend Northern Michigan University to earn degrees in Environmental Studies, Sustainability, and Spanish. After college, she spent time in the U.S. Peace Corps serving as a Rural Extension Agent in Guatemala. She brings 4 years of classroom teaching, public programming, and natural interpretation to the team. Her utmost passion is being a "super cool science school" teacher, sharing her love of nature with students and adults alike. In her free time, she enjoys birding, foraging for wild foods, and cooking. She is thrilled to be a part of Asombro and is excited to learn more about the Chihuahuan Desert and communicate its ecological intricacies and beauty to the community.

What do you like best about your new position?

So many things! I love that on a daily basis I am presented with opportunities to connect with kids of all ages from the area and also connect them to a passion that has given me so much joy. I also feel very drawn to Asombro's dedication to sharing real-time science with students and the collaboration with local scientists. In my opinion, this process takes a subject that can, at times, appear cold, difficult, and solitary and transform it into something that is more warm, comprehensible, and accessible to the community.

Red or green?

Well, I just moved here a few months ago, but I've learned that "Christmas!" is an acceptable answer to this question, so... both (seeing as both are delicious and I get to exclaim "Christmas!" in the middle of a restaurant)!



Marissa Bowler,
Science Educator



Meet Ashlynn - Asombro's Spring Semester Undergraduate Intern

Ashlynn is a senior at New Mexico State University studying conservation ecology and is thrilled to be part of the team at Asombro to share her love of science and education with students across southern New Mexico. Born and raised in Albuquerque, she has grown up learning to appreciate both science and education separately and loved spending the semester combining her two passions while being a role model for young students interested in STEM. Although Las Cruces is not her hometown, Ashlynn loves the community and giving back to those who make it so inclusive. When she is not working or studying, you can find Ashlynn reading or hiking, trying to name as many plants on the trail as she can.



Ashlynn Little,
Undergraduate Intern

What is your favorite thing about the internship?

In this position, I have really enjoyed getting to work with a variety of people and thinking of creative ways to get students excited about science. I have also enjoyed observing lessons that showcase science concepts right here in southern NM.

Red or Green?
Definitely green!



Isaac Moreno,
Undergraduate Intern

Meet Isaac - Asombro's Spring Semester Undergraduate Intern

As a 7th-grade student, Isaac won a top prize in the 2015 Desert Data Jam! We are delighted that he has continued his education in science and applied to be an Asombro undergraduate intern this semester.

Isaac grew up in Las Cruces and is a third-year college student majoring in Biochemistry, Microbiology, and Spanish at NMSU. He also works as a lab assistant, a senator for the College of Arts & Sciences, and a mellophone player for the Pride of New Mexico marching band. In his free time, Isaac loves playing video games, hiking, and practicing French. He loves being an intern for Asombro and working with kids, just as Asombro did with him while he was in middle school!

What is your favorite thing about your new internship?

I love getting to share a love of science with younger kids and encouraging them to become invested in STEM. Getting to see kids eager to learn more science or share their knowledge of science is endearing and an amazing perk of the internship.



Red or Green?

Parents can't pick a favorite child. I can't pick a favorite chile, but the spicier the better.

On the Road with Summer Teacher Workshops

Summer means teacher workshop time at Asombro. This summer, we'll be in southern New Mexico and on the road, bringing our award-winning science education programs to northern New Mexico, Oklahoma, and Utah. We're excited to partner with many other groups, including the Farm & Ranch Heritage Museum, BlueSTEM AgriLearning Center, NASA's Earth to Sky program, Science Moab, and the Nature Conservancy's Dugout Ranch.

Space is limited in these workshops, and registration is required. If you know teachers interested in learning more and applying for these workshops, please visit www.asombro.org/teacher-workshops/.



Climate Change in the Southwest

Date: June 20 and 22, 2023

Audience: middle and high school teachers

Location: virtual workshop via Zoom

Note: Different lessons will be covered on each day, so teachers may attend one or both workshops.

New Mexico Climate Champions

Dates: July 18 and 19, 2023

Audience: middle school teachers

Location: Albuquerque, New Mexico

Note: This is a two-day workshop and teachers must attend both days. There is also a follow-up workshop via Zoom on Nov. 4.



Curious About Cows? NGSS-Aligned Lessons on the Science of Sustainable Ranching

Date: June 21, 2023

Audience: 3rd through 5th grade teachers

Location: New Mexico Farm & Ranch Heritage Museum in Las Cruces



NASA Earth to Sky Workshop

Dates: July 18-20 (three-day workshop)

Audience: Native informal educators

Location: Los Alamos, New Mexico

Note: Asombro is partnering with this larger team and will provide sessions on our 6th-12th grade climate change lessons.



Connecting to Climate: From Global to Local

Date: July 10, 2023

Audience: middle and high school teachers

Location: El Reno, Oklahoma



Connecting to Climate: From Global to Local

Date: September 28, 2023

Audience: middle and high school teachers

Location: Moab, Utah



Curious About Cows? NGSS-Aligned Lessons on the Science of Sustainable Ranching

Date: July 11, 2023

Audience: 3rd - 5th grade teachers

Location: El Reno, Oklahoma



Curious About Cows? NGSS-Aligned Lessons on the Science of Sustainable Ranching

Date: September 30, 2023

Audience: 3rd - 5th grade teachers

Location: Near Moab, Utah



Asombro Hosts Scientists and Educators from Arizona

From March 27-29, the Asombro team hosted five science educators from the McDowell Sonoran Conservancy in Scottsdale, Arizona. Their team came to learn from Asombro about our K-12 science education programs.

The visit included a tour of the Chihuahuan Desert Nature Park and the USDA-ARS Jornada Experimental Range headquarters, an interactive sampling of Asombro lessons, discussions of partnership possibilities, a talk about Jornada science with Dr. Sarah McCord, and visits with Asombro staff members to see classroom lessons for 1st through 7th-grade students. We look forward to future work with the Conservancy to help people of all ages learn about and enjoy our neighboring southwestern deserts.



For three days, the Asombro and McDowell teams shared valuable information, ideas, knowledge, New Mexico food, and laughs.

Wonder Award for Outstanding Volunteer Service: Cathy Boeker



Wonder Award recipient
Cathy Boeker

Asombro has always had a special relationship with teachers, so it's no surprise that some of our most incredible volunteers are teachers too! We met **Cathy Boeker** back when she was working as a librarian at Sierra Middle School. Now retired, she keeps her teaching muscles toned and strong with us in classrooms and on field trips. For years, Cathy has been one of our go-to volunteers, always ready to join us at a

school or support remote learning when we were all stuck at home.

Thanks, Cathy! We think you're WONDER-ful!

Fun Fence Facts

Asombro recently marked the completion of fencing along the southern and western boundaries of the Chihuahuan Desert Nature Park. This will help us protect the fragile desert ecosystem from trespassing cows and off-highway vehicles. Prickly-pear cacti and hikers alike can rejoice in less disturbance along the trails!

- **2.3 miles of fence**
- **800 t-posts**
- **35 rolls of barbed-wire**
- **45 days to build**
- **8 people to build it**



The entire boundary of the Chihuahuan Desert Nature Park is fenced!

THANK YOU!

We are grateful to our generous donors from January through April 2023.

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Asombro Featured on KRWG Community Connection



A video about Asombro is now part of KRWG Media's Community Connection project (<https://www.krwg.org/show/community-connection>). According to the project's website, this series of approximately 3-minute videos features "local nonprofits and government programs that are making a difference in our region."

The video about Asombro will show on KRWG-TV in between regularly scheduled shows and will continue to be available at the link above.

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