

Asombro Insights

Science education for eager minds

A Quarterly Newsletter

Volume 29, Issue 4 (October - December 2020)

Back-to-School, Back-to-Science

By Stephanie Bestelmeyer

When schools closed for “extended spring break” last March, none of us imagined that students would still be learning from home more than seven months later. Yet Asombro entered this back-to-school season committed to making sure that engaging, hands-on science was still part of the curriculum.

Our talented staff researched and applied best practices for remote learning to create science modules (www.asombro.org/remote) that teachers assign to their students. Some require small kits of materials which we provide, ensuring that all students have everything they need to participate. Thanks to the generosity of Asombro donors (see page 3), we raised more than \$8,400 to support these efforts!

Teachers, parents, and students love the lessons. Teacher Deana Hille eloquently expresses just how much these lessons mean to students in this email she sent us:



Kelly and Abi assemble science supply kits for 8th graders. Through the end of October, Asombro has created nearly 3,000 science kits. Teachers help distribute them to elementary and middle school students so they can participate in Asombro's remote-learning, hands-on education modules.

“In this remote world of teaching, it's difficult to promote engagement with students of all ages, but especially with elementary. In the classroom, our typical day would include tons of opportunities to have hands-on practice. Hands-on learning helps students in both understanding concepts as well as in connecting that learning in ways that help them retain it... I have never seen as much joy and excitement on the faces of my students as when we are doing the experimental portion of a science lesson!

I am beyond excited to know that because of the generosity of Asombro and their donors, my students are going to have the opportunity to do hands-on science during our remote learning! I cannot wait to hear how much fun they have doing these lessons! I can picture them walking with their socks and studying the seeds and I know that this will be the most engaging lesson they have done so far this year! I wish I could be there in person to feel that excitement but I guarantee that this will be one of the lessons that they talk about at the end of the year. And it's all because of Asombro. I can't thank you enough for this amazing opportunity for our students and this chance for them to bring their classroom hands-on science home during this unique time.”

Dr. Deana Hille, Valley View Elementary School Teacher

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Wonder Award for Outstanding Volunteer Service: Asombro Kids

By Kelly Steinberg

This year has presented multiple challenges, but one of the hardest for Asombro staff has been that we have so few chances to be with students! That's why this quarter, we are awarding the Wonder Award to a small group of students who have helped us IMMENSELY in recent months! The Asombro Kids, a select group of young people lucky enough to be quarantined with an Asombro adult, have been testing out activities and providing feedback on lessons before they are shared with local students.

Wesley is our expert on all things elementary. While testing our 4th grade lesson *Let it Blow!*, he carefully measured the impacts of plant cover on erosion and designed an erosion control solution based on snack foods. As our resident middle schooler, **Sofia** has given invaluable advice on *Backyard Biodiversity* and many more. **Thomas**, who has a history of being an exceptional Asombro volunteer, recently tested out our 8th grade lesson *Magnets and Migration* with a great eye to detail. **Israel and Moses** have become experts on the Water Conservation Data Jam and Southwest Sustainable Beef projects and could probably teach a few lessons themselves. They can be seen in multiple videos on the [Asombro YouTube Channel](#). Thank you all. We think you're WONDER-ful!



Sofia and Wesley Amato
Israel and Moses Stacy



Kangaroo Rats Go Virtual

By Kelly Steinberg

In a typical school year, we would have kicked off the year with lots of energy. Kinetic energy that is (we are always pretty energetic around here). Asombro brings a little Life Science into 8th grade Physical Science classes with our program, *Energy Transfers Around a Kangaroo Rat*. Students learn that kinetic and potential energy transfers are happening constantly in living things. For example, when a kangaroo rat in the desert eats seeds, it gets chemical energy, which it can transform into motion energy when it runs away from a rattlesnake.

This year, we took the lesson online with interactive models, videos, and class discussions. Students watch video footage of kangaroo rats jumping away from rattlesnakes, drumming their foot in warning, and gathering seeds. Then they identify the energy transfers that are taking place. After practice identifying energy transfers in the desert ecosystem, students start looking for them at home and discuss burning questions like: If you had a super power that allowed you to transform just one type of energy into another, what energy transfer would you choose? Or if you were a super villain that could stop one energy transfer from happening, what transfer would you choose?



A kangaroo rat uses motion kinetic energy to jump away from a striking rattlesnake.

Pipe Cleaners, Chads, and Dust Collectors, Oh My!

By Ryan Pemberton

Doña Ana County has some of the highest levels of dust pollution in New Mexico, and the effect on local residents' health is concerning. Dr. Nick Webb of the Jornada Experimental Range is studying the effect of short- and long-term ecosystem disturbances on the magnitude of regional dust emissions. Asombro has partnered with Dr. Webb to transform his research about this important topic into engaging, hands-on activities for local students.

In Asombro's new remote *Let It Blow!* lesson, 4th grade students are shown some of the disturbances that have changed the Chihuahuan Desert ecosystem and how the changes have

affected the amount of dust created from wind erosion. Students learn about this local phenomenon with a Science Kit supplied by Asombro. They use pipe cleaners to model vegetation types and blow dust (paper chads) into a miniature model dust collector. This simple set-up allows them to gain experience with a relevant local topic while learning at home.

So far, more than 650 students from 12 schools in Las Cruces have been able to participate in this hands-on, online module thanks to the help of a dedicated regiment of volunteers, generous donors, and the research of local scientists.



Students use an Asombro Science Kit to model different types of ground cover in three trials of an experiment. From left to right: Grassland, Shrubland, and Human-Cleared.

A Huge Thanks to Our *Back-to-School, Back-to-Science* Campaign Donors!

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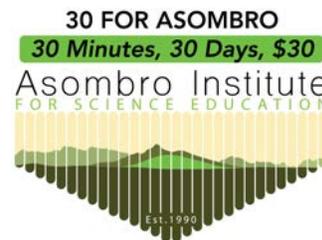
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Moving for Science Education: 30 for Asombro

More than 100 people participated in our 30th anniversary celebration virtual move-a-thon, 30 for Asombro! We're extremely grateful to those who moved for science education during August. Thank you all! Everyone did an amazing job, and our top award winners logged an impressive number of minutes for local youth!



Adult Award Winners

1st: Cherie Pemberton (7,346 min.)
2nd: Ginny Herrick (7,194 min.)
3rd: Michele Nishiguchi (7,108 min.)

Youth Award Winners

1st: Jude Talavera (3,715 min.)
2nd (tied): Oliver & Ephrem Settles (1,355 min.)
3rd: Sofia Amato (1,077 min.)

THANK YOU!

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asombro.networkforgood.com

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