# **Asombro Insights**

Science education for eager minds

#### **A Quarterly Newsletter**

Volume 23, Issue 4 (October - December 2014)

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# **Teaching Students About Water and Our Changing Climate**

#### By Stephanie Haan-Amato

Pilot testing has begun on Asombro's new middle and high school curriculum for the USDA's Southwest Regional Climate Hub. Climate Hubs were created earlier this year to deliver science-based information to farmers, ranchers, and land managers to help them effectively respond to climate change. The Southwest Regional Climate Hub, based at the Jornada Experimental Range, has asked Asombro to make sure this same science-based information makes its way to students.

Because water is such an important resource in the southwest, our first unit of the curriculum focuses on the effects of climate change on the water cycle. We have created a flexible, 10-hour unit about the hydrologic cycle and water issues that can be used in its



7th graders cheer for their teammate as they learn about the effects of climate change on water cycling through a fun hands-on game.



Students experiment with variables that affect water evaporation rates as part of the new water unit developed by Asombro for the Southwest Regional Climate Hub.

entirety or in parts, based on educators' needs.

Students begin by learning about the greenhouse effect and climate change with hands-on experiments and activities. Next, they simulate the hydrologic cycle with a paper-ball tossing game and examine the effects of climate change on the water cycle with a Chutes-and-Ladders-style board game called "Streams and Steam." Learners will then gain a better understanding of water availability and issues with more experiments and practice examining and communicating hydrologic data.

As with all Asombro programs, the unit will be extensively pilot tested and refined prior to publication. The first pilot test is happening now with 7th graders at a middle school in Las Cruces. Revisions and more pilot testing will follow, and the unit will be ready for release online to formal and informal educators throughout the southwest in summer 2015.

# **Middle School Merriment**



#### By Stephanie Bestelmeyer, Ph.D.

It's a good thing that Asombro staff members like middle school students so much because we're working with them <u>a lot</u> through three fun education programs this school year.

You may have heard about a small portion of the Spaceport tax that goes to Las Cruces Public Schools to support science, technology, engineering, and math education in local schools. Through a wonderful partnership, LCPS and Asombro are using part of those funds to provide unique, inquiry-based science for all 7th grade students. Asombro staff will bring our award-winning programs directly to classrooms, focusing on diverse topics chosen by teachers such as ecosystems, the carbon cycle, DNA and wildlife CSI. Many of the 7th graders will also visit the Chihuahuan Desert Nature Park and then receive follow-up classroom programs with Asombro staff.

This year, LCPS created advanced, integrated science classes for 7th graders, and they asked Asombro to be a big part of the curriculum. With funds from the Spaceport tax and the National Science Foundation, Asombro is bringing six classroom programs and a field trip to the Chihuahuan Desert Nature Park to all students in these classes.

Finally, a generous grant from the Wolslager Foundation allowed us to continue our Stepping Out for Science Inquiry Project at four middle schools. Through monthly science programs in the classroom with Asombro staff, students gain an increasingly sophisticated understanding of the Chihuahuan desert ecosystem.

# Support Asombro Through AmazonSmile

If you plan to do some of your holiday shopping on <u>amazon.com</u>, a couple more mouse clicks will result in donations to Asombro.

AmazonSmile is operated by Amazon as a way to give back to charities. When you log on to AmazonSmile (<u>smile.amazon.com</u>), you will see the same products, prices, and features as on the main site, including Amazon Prime benefits. The amazing difference, however, is that 0.5% of the purchase price of everything bought through AmazonSmile will be donated to the Asombro Institute for Science Education.

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these donations right to work for education.



# **Education Programs**

#### Thanks to your support, Asombro staff provided 609 hours of science for 12,195 students so far in 2014!

- 1-Jul Tularosa Library Desert Animals
  8-Jul Jornada Basin LTER Tour of Nature Park
  10-Jul Westside Branch Library Desert Animals
  11-Jul Alamogordo Library Arthropod Identification
  12-Jul Doris Van Doren Library Bats
  1-Aug NPSNM Asombro & Science Education
- 5-Aug White Sands Youth Services Asombro Institute
- 15-Aug J Paul Taylor Academy Radiotelemetry
- 16-Aug Butterfly Flutterby
- 26-Aug Sierra MS Soil Types & Water Infiltration
- 27-Aug Vista MS Soil Types & Water Infiltration
- 28-Aug East Picacho Elem. Biomes
- 29-Aug Arrowhead Park Early College HS Desert Data Jam
- 2-Sep Arrowhead Park Early College HS Desert Data Jam
- 2-Sep University Hills I'm A Scientist, Too
- 3-Sep LC Catholic I'm A Scientist, Too
- 3-Sep Picacho MS Soil Types &Water Infiltration
- 4-Sep Camino Real MS Dust Data Jam
- 8-Sep Fairacres Elem I'm A Scientist, Too
- 9-Sep Lynn MS Soil Types & Water Infiltration
- 10-Sep Mesa MS Soil Types & Water Infiltration
- 10-Sep Picacho MS Dust Data Jam
- 11-Sep Camino Real MS Soil Types & Water Infiltration

- 11-Sep Zia MS Soil Types & Water Infiltration
- 12-Sep Sierra MS Field Trip
- 15-Sep J Paul Taylor Academy Biotic & Abiotic Ecosystem Components
- 16-Sep North Valley Elem. I'm A Scientist, Too
- 17-Sep Sierra MS Biotic & Abiotic Ecosystem Components
- 17-Sep Vista MS Scientific Method
- 18-Sep J Paul Taylor Academy I'm A Scientist, Too
- 20-Sep Dog Days
- 22-Sep Vista MS Dust Data Jam
- 23-Sep Sierra MS Biotic & Abiotic Ecosystem Components
- 23-Sep East Picacho Elem. I'm A Scientist, Too
- 24-Sep Picacho MS Biotic & Abiotic Ecosystem Components
- 24-Sep LC Catholic Habitat stats; Food Web & Biodiversity; Rock and Mineral Identification
- 25-Sep Vista MS & Mesa MS Field Trip
- 25-Sep Sierra MS Biotic & Abiotic Ecosystem Components
- 26-Sep Lynn MS & Picacho MS Field Trip
- 29-Sep MacArthur Elem I'm A Scientist, Too
- 29-Sep J Paul Taylor Academy Science Interns: Earth
- 30-Sep Mesa MS Dust Data Jam

# **Upcoming Events**

## Kettle Corn Sales at Renaissance ArtsFaire - Saturday, November 1st & Sunday, November 2nd

Supporting Asombro has never been so easy. Come out to the 43rd annual Renaissance ArtsFaire at Young Park in Las Cruces and buy delicious kettle corn from Southwest Kettle Korn. Asombro staff and volunteers will work with long-time

Asombro supporter and Southwest Kettle Korn owner Brian Peterson during the Faire. A portion of the proceeds will go toward supporting our education programs.

#### Desert Dash Trail Race - Saturday, November 8

Enjoy the fresh air and beautiful trails at the Chihuahuan Desert Nature Park during the Desert Dash Trail Race. This year, runners and walkers can choose from four races: children's 1 mile, 5K, 10K, and half marathon. The first race begins at 8:30 AM at the Chihuahuan Desert Nature Park. You can register online and get more information by visiting www.asombro.org/dash.

### Luminarias at the Park - Friday, December 12th 5:00- 7:30 pm

Come see the park glowing with luminarias at dusk. Enjoy music and hot chocolate. This free event will feature a fire pit and a great chance to relax and take in a peaceful sight during this busy season.



# **THANK YOU!**

## We are grateful to the generous donors in the third quarter of 2014.

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#### **Moonlight Taste of the Desert Dinner Thank You!**

- Steph & Brandon Bestelmeyer
- **Adres Cibils**
- Lauren Cunningham
- Friends of the Taylor Family Monument
- Gene Gant

\*

- **Craig Haneke**
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# Asombro on Facebook

You won't believe the animals we are capturing on our wildlife cameras at the Chihuahuan Desert Nature Park! Make sure you like the Asombro Institute for Science Education on Facebook so you don't miss a single one of our Critter Cam posts, showcasing some amazing wildlife species that prefer to roam when people aren't around.



This bobcat (*Lynx rufus*) was "caught" this summer on one of the automatic wildlife cameras installed at the Chihuahuan Desert Nature Park.

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