

Asombro Insights

Science education for eager minds

A Quarterly Newsletter

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Students Become New Mexico Climate Champions

"I love being a New Mexico Climate Champion. People don't think kids can do much, but we're proving that we can."

This 6th grader captured the essence of one of Asombro's newest education programs, New Mexico Climate Champions, which is funded by a grant from the Environmental Protection Agency. Through this intense, 10+ hour program, students learn about climate change and New Mexico's water and energy resources. Then they put this knowledge into action by creating plans to help people at their school and in their community adapt to or mitigate the effects of climate change.

Classroom teachers begin by choosing one of the project's two modules: energy or water. Then Asombro staff members and each class engage in five hours of content-filled lessons. Students become experts on understanding how energy and water in New Mexico affect and are affected by climate change. Next, students go through a formal project planning guide to develop action plans.

"We want students to understand that they can be agents of change - that what they do makes a difference to the world they are inheriting from our generation," said Executive Director Stephanie Bestelmeyer.



Photo by Tabitha Rossmann.

6th graders play "Streams and Steam" to learn about climate change and New Mexico water. They use this new knowledge to create action plans implemented in the community.

New Mexico Climate Champions has already been implemented in four classes at Las Cruces High School and three classes at J. Paul Taylor Academy. It will also be part of a summer science camp Asombro is hosting in collaboration with the Las Cruces Public Schools.

"We've been so impressed by students' action projects. They have organized school-wide events, installed a rain harvesting barrel, put together educational campaigns on energy conservation, and much more," said Science Education Specialist Libby Grace.

In the next phase of the project, Asombro will host a summer workshop for New Mexico educators. Participating teachers will receive the content-rich, hands-on lessons as well as the supplies needed to run them in their classes. Educators can also apply for sub-grants from Asombro to fund student action projects. The result will be more than 1,000 knowledgeable, empowered New Mexico Climate Champions throughout the state by 2018.

8th Graders Learn about Lesser Known Water Conservation Techniques



Most of us have heard that we should turn the faucet off when we brush our teeth and take shorter showers to help conserve our scarce water resources. A new Asombro classroom education program is helping 8th grade students go one step further to learn about some less well known, but ancient, water conservation techniques.

We developed this lesson to address a science education standard about humans' impact on the environment. Students examine data on public supply water use. Then they rotate through three activity stations to collect data and answer questions related to three water conservation techniques:

- Rooftop rainwater harvesting - collecting water from rooftops and

- storing it in barrels for later use
- Greywater recycling - reusing water from bathtubs, showers, bathroom sinks, and washing machines



Students use a small-scale model to experiment with various land contouring designs.

- Land contouring - creating basins that collect and absorb water that would otherwise run off the land
- Since these conservation techniques are too large to bring into classrooms, we created small-scale models of each system using simple materials like aluminum trays (to simulate a rooftop) and marbles (to simulate water going through pipes).
- This spring, every 8th grader in the Las Cruces Public Schools will participate in this new, inquiry-based, hands-on lesson with Asombro staff.

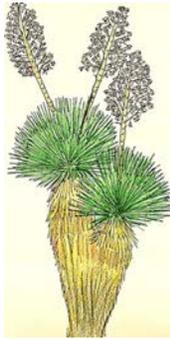
Education Programs

Thanks to your support, Asombro staff provided 324 hours of science for 7,311 students so far in 2017!

4-Jan LCPS Teachers - Using Data	2-Feb Sunrise (GISD) - Classification	24-Feb Sierra MS - Vegetation Measurements
4-Jan LCPS Teachers - NM Climate Champions	6-10 Feb Las Cruces HS - NM Climate Champions	27-Feb J Paul Taylor Acad. - NM Climate Champions
4-Jan LCPS Teachers - Data Jam	6-8 Feb Hillrise Elem - Science Interns	28-Feb Sierra MS - Data Jam
10-Jan Mesa MS - Data Jam	6-Feb Lynn MS - Wildlife CSI	28-Feb Vista MS - Wildlife CSI
10-Jan East Picacho Elem - Desert Stories	7-Feb Lynn MS - Wildlife CSI	1-Mar Vista MS - Wildlife CSI
11-Jan Vista MS - Data Jam	9-Feb J Paul Taylor Acad. - Weather	1-Mar Picacho MS - Data Jam
12-Jan J Paul Taylor Acad. - Desert Plants	9-Feb Picacho MS - Data Jam	2-Mar Highland Elem - Arthropod ID
12-Jan Picacho MS - Data Jam	9-Feb Lynn MS - Data Jam	2-Mar Vista MS - Data Jam
13-Jan Mesa MS - Data Jam	10-Feb Hillrise Elem - Science Interns	3-Mar Jornada Elem - Weather
13-Jan Lynn MS - Kinetic Energy	10-Feb Zia MS - Data Jam	3-Mar Highland Elem - Arthropod ID
17-Jan Sierra MS - Wildlife CSI	13-Feb Sierra MS - Data Jam	4-Mar STEM Day for Girls - Radiotelemetry
17-Jan Camino Real MS - Data Jam	13-Feb Mesa MS - Data Jam	6-Mar Monte Vista - Desert Stories
17-Jan Sierra MS - Wildlife CSI	13-Feb J Paul Taylor Acad. - Streams & Steam	6-Mar Mesa MS - Data Jam
18-Jan Yucca Elem - Desert Plants	14-Feb Vista MS - field trip	7-Mar Mesilla Elem - Arthropod Identification
19-Jan East Picacho Elem - Desert Stories	15-Feb Aldo Leopold Charter School - Field Trip	7-Mar Mesa MS - Data Jam
19-Jan Sierra MS - Wildlife CSI	15-Feb J Paul Taylor Acad. - Ready, Set, Grow	8-Mar Monte Vista - Desert Stories
20-Jan Gadsden Elem - Desert Stories	15-Feb LC Catholic - Earth Movers	8-Mar LC Catholic - Zoology Identification
20-Jan Zia MS - Wildlife CSI	15-Feb LC Catholic - Arthropod Identification	8-Mar LC Catholic - Greenhouse Effect
23-Jan East Picacho Elem - Desert Stories	15-Feb LC Catholic - Rock It	9-Mar Vista MS - Data Jam
23-Jan Zia MS - Data Jam	15-Feb Vista MS - Science Night	9-Mar J Paul Taylor Acad. - Biomes
23-27 Jan Las Cruces HS - NM Climate Champions	16-Feb Vista MS - Stratigraphy	9-10 Mar Highland Elem - Arthropod ID
24-Jan Central Elem - Arthropod Identification	16-Feb J Paul Taylor Acad. - Water Use & Conservation	10-Mar Central Elem - Health Fair
24-Jan Gadsden Elem - Desert Stories	16-Feb Zia MS - Wildlife CSI	10-Mar Monte Vista - Desert Stories
25-Jan East Picacho Elem - Arthropod ID	16-Feb Desert Hills Elem - Science Night	13-14 Mar Desert Hills Elem - Field Trip
25-Jan LC Catholic - Weather	17-Feb J Paul Taylor Acad. - Climate Data Jam	14-Mar J Paul Taylor Acad.- Human Impacts
26-Jan Sierra MS - Data Jam	17-Feb Mesa MS - Data Jam	14-Mar J Paul Taylor Acad. - NM Climate Champions
26-Jan Picacho MS - Wildlife CSI	17-Feb East Picacho Elem - Weather	15-Mar LC Catholic- Plant Life Cycle
26-Jan Highland Elem - Science Night	17-Feb Zia MS - Wildlife CSI	15-Mar LC Catholic - Solar System
27-Jan Picacho MS - Wildlife CSI	21-22 Feb J Paul Taylor Acad. - NM Climate Champions	15-Mar Western Institute for Life Long Learning - Nature Hike
27-Jan Gadsden Elem - Desert Stories	21-Feb Camino Real MS - Wildlife CSI	17-Mar Rio Grande Elem - Career Day
30-Jan Mesa MS - Wildlife CSI	22-Feb Camino Real MS - Wildlife CSI	28-Mar White Sands MS - Wildlife CSI
30-31Jan Las Cruces HS - NM Climate Champions	24-Feb J Paul Taylor Acad. - NM Climate Champions	28-Mar White Sands MS - Human Impacts
30-31 Jan J Paul Taylor Acad.-Science Interns		29-Mar Jornada Elem - Arthropod ID
31-Jan Mesa MS - Wildlife CSI		29-Mar Zia MS - Human Impacts
1-Feb J Paul Taylor Acad. - Science Interns		30-Mar Valley View Elem - Habitat Stats
1-3 Feb Las Cruces HS - NM Climate Champions		31-Mar Sierra MS - Field Trip

Grant from Native Plant Society of New Mexico Will Bring Yucca/Yucca Moth Story to Students

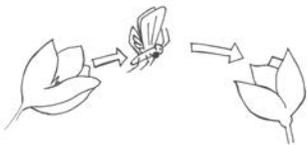
Did you know that there is a small, relatively inconspicuous moth that is responsible for pollinating New Mexico's state flower - the yucca? The female moth carries pollen in a ball under her neck from one flower to another. She packs the pollen into the stigma of a flower, ensuring pollination, and lays her eggs in the ovule at the base of the flower. When the eggs hatch into larva, they eat some of the yucca seeds within the developing fruit, but many more are left to be scattered by the wind once the yucca seed pods dry and open.



Drawing by Hernan Campos.

Thanks to a generous grant from the Native Plant Society of New Mexico, approximately 100 3rd grade students will participate in hands-on science, math, and language arts activities with Asombro staff to learn more about this fascinating desert story. Through three, one-hour lessons led by Asombro staff, students become experts on the yucca. Teachers and administrators love how the lessons incorporate 3rd grade education standards in math, reading, and writing as well.

The Native Plant Society of New Mexico is a nonprofit organization that strives to educate the public about native plants. We are grateful for their generous support and proud to partner with them to bring the story of the yucca and yucca moth to New Mexico students.



Drawing by Anna Kimtis.

Vehicle Donations

When you look at the Education Program list on page 2, you can see that Asombro staff are on the move! To bring exciting science programs to students throughout southern New Mexico, we travel thousands of miles each year, and we often have programs at multiple schools each day.

Getting to these programs became much easier in the last two months thanks to generous donations from two of our supporters. In February, Donna Yargosz donated her Honda Accord, which joins the other Honda Accord in our "fleet" that was donated by Susan Vantress in 2012. In March, David Hutchinson donated his Chevrolet truck, which will be useful for hauling large items to classrooms and for many projects at the Chihuahuan Desert Nature Park.



The Asombro fleet now includes four vehicles, including three donated by generous Asombro supporters!

THANK YOU!

We are grateful to the generous donors in the first quarter of 2017.

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We need you! Asombro's success stems from more than 100 people who volunteer with us each year. Join this incredible group by contacting Stephanie Haan-Amato (s.haan-amato@asombro.org) or calling the office (575-524-3334). We have many different types of volunteer opportunities available, including a monthly volunteer gathering to prepare education materials for upcoming programs. We can find a volunteer opportunity that fits your interests and schedule.



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