

# Asombro Insights

*Science education for eager minds*

A Quarterly Newsletter

Volume 20, Issue 2 (April - June 2011)

Learn about a fantastic opportunity for entering 6th - 8th graders to integrate science and art this summer through the **Gen M Science & Art Institute**.



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Fascinating arthropods (including insects and spiders) share our desert home. Read about these amazing arthropods and then go explore on your own.

Page 3



Your donations brought science to life for more than 4,000 K-12 students in the first quarter of the year. See the list of programs on **page 4**.



Spring has sprung at the Chihuahuan Desert Nature Park. Learn about the signs of spring and mark your calendars for a sunset evening walk on Friday June 3 to learn more.

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In addition to making a financial contribution, there are many more ways you can contribute to the success of the Asombro Institute. Read about some of these opportunities.

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Check the map for directions on getting out to the Chihuahuan Desert Nature Park to learn and explore.

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- Rink Somerday - Program Coordinator
- Paul Harper - Site Coordinator

### CONTACT US

Asombro Institute for Science Education  
 PO Box 891, Las Cruces, NM 88004  
 575-524-3334 (voice)  
 575-646-2315 (fax)  
 information@asombro.org  
 www.asombro.org

## 5th Grade Desert Leaders

"Welcome to the first annual Desert Science Day!" said the teacher as he greeted the Monte Vista Elementary School 2nd graders.

The 2nd graders and students from every other grade at Monte Vista got to spend Friday, April 29 learning about the desert. Teachers stayed busy leading students through 14 hands-on activity stations throughout the entire day.

What makes this day of learning even more amazing is that **the teachers were actually 5th grade students from Monte Vista Elementary School!**

Thanks to a grant to the Asombro Institute from the New Mexico Children's Foundation, 5th graders worked with Asombro staff to learn about the desert throughout the 2010/11 school year. They conducted hands-on experiments to learn more about the desert near their school.

On April 29, these young scientists got to showcase their new knowledge and practice their leadership skills.

"Desert Day was an awesome experience for our students!" said 5th grade teacher Aine Garcia. "Planning



*A 5th grade leader high-fives a student who correctly classified animals at Desert Day.*

for and taking part in this day made our science curriculum real and purposeful. The collaboration and problem solving skills that were needed to prepare and run each station showcased their learning and leadership. All 5th graders

*(Continued on page 4)*

## NOTES FROM THE DIRECTOR

The Asombro Institute for Science Education lost a great friend, collaborator, and colleague in late February when Eddie Garcia passed away suddenly.

Eddie worked at the USDA-ARS Jornada Experimental Range for 37 years, most recently as the Ranch Manager, before retiring last December.

I'll always remember the first time I met Eddie shortly after I started working at the Asombro Institute in 2000. He immediately welcomed me and told me to feel free to call on him anytime if there was anything he or his staff could do to help us with field trips or maintenance at the Chihuahuan Desert Nature Park.

Little did Eddie know just how many times I would ask for his help in the next 10 years! He always greeted us warmly and helped us set up countless field trips to the Jornada Experimental Range. Any time our entrance road at the Nature Park got too bumpy, all we had to do was call Eddie and he'd be out on the road grader within days. It's hard for me to even count how many times he drove to the Park from his home at the first sign of unauthorized use.

Eddie's support of the Asombro Institute went well beyond his professional duties. In fact, he was the first person to donate money to rebuild the Nature Park following the vandalism of the restrooms in 2006.

Rink, Paul, and I all have great memories of Eddie. We deeply miss his smile, his infectious laugh, his waves as we passed his vehicle on Jornada Road, and his dedication to figuring out how to solve just about any problem.

It has been said that the true mark of a man is the number of ways he made the world a better place. Certainly by this standard, Eddie left a huge mark and he is greatly missed.

*Stephanie Bestelmeyer*



Eddie Garcia and Asombro Director Stephanie Bestelmeyer taught students about yucca on a field trip.

## Calendar of Events

**Mon. May 16 and Tues. June 14 Full Moon Hike at White Sands National Monument 7:30 pm.** Programs are free but monument entrance fees apply. Registration for May 16 will close on May 13. Registration for June 14 will open on May 31 and close on June 11. No registration forms will be accepted before or after these dates. The hikes are limited to 40 participants.

**May 30 Ranger-led hikes to Guadalupe Peak, the Permian Reef, The Bowl, Pratt Cabin or the Notch at Guadalupe Mountains National Park.** For more information, please contact the Pine Springs Visitor Center (915-828-3251 ext. 2124) or visit the park's website at [www.nps.gov/gumo/](http://www.nps.gov/gumo/)

**June 2 - 3 Biodiversity Workshop for middle and high school teachers.** Visit the Asombro Institute website to apply ([www.asombro.org](http://www.asombro.org))

**June 3 Sunset Walk. 7 PM at the Chihuahuan Desert Nature Park.** Take a guided walk to get a glimpse of a beautiful desert sunset at the Chihuahuan Desert Nature Park.

## Register NOW for Summer Program!

Students entering 6th-8th grade have an opportunity to learn about integrating science and art during the GEN M SUMMER SCIENCE & ART INSTITUTE, which will be held Monday through Friday June 6 - 17 from 8:30 AM until noon. There is an optional afternoon program at the Boys & Girls Club until 5:30 each day.

The Gen M Summer Science & Art Institute is a collaborative project of four nonprofit organizations (Asombro Institute for Science Education, Court Youth Center, Boys & Girls Club, and Big Brothers - Big Sisters) with funding provided by the WalMart Foundation to the Community Foundation of Southern New Mexico.

During the Institute, students will engage in hands-on science activities at the Court Youth Center. They will also work with AmeriCorps artists to create art related to the science topics. The student-created art and science will be highlighted at a community event on Saturday June 18.

Thanks to grant funding, the materials fee for the entire two-week program is just \$5! Call the Court Youth Center for more information and to register (575-541-0145).



## Explore Amazing Arthropods

By Rink Somerday, Program Coordinator

With the coming of spring, the days grow longer, the temperatures rise and “bugs” come out. “Bug” is a word often used to describe any type of creepy-crawly. But did you know that not every creepy-crawly is a “bug”?

Arthropods are animals characterized by having jointed legs and an exoskeleton. Exoskeleton? Yes, they have their skeleton on the outside of their body! Arthropods include several well-known groups like insects, spiders, and centipedes. What makes arthropod groups different from one another is the number of body parts, legs, antennae and wings.

By looking at the table to the right, we can see that all insects have 6 legs and 2 antennae. Some insects have wings and some do not. Insects have 3 body parts (head, thorax, and abdomen). Arachnids (spiders, scorpions, vinegaroons) have 8 legs and no antennae. They do not have wings. (Whew! No flying tarantulas!) They have 2 body parts (cephalothorax and abdomen).

Number of legs and antennae	Does it have wings?	Number of body parts	What kind is it?
6 legs 2 antennae	some do; some don't	3	insect
8 legs 0 antennae	no	2	arachnid
2 legs per body segment 2 antennae	no	many	centipede
4 legs per body segment 2 antennae	no	many	millipede
10 or 12 or 14 legs 4 antennae	no	3	crustacean

Centipedes and millipedes can be confused. Centipedes are long and flat with 2 legs per body segment. Centipedes are venomous and can bite. They have 2 antennae on their head. Their back two legs are camouflaged to look like antennae. They have no wings.

Millipedes are long and round and have four legs per body segment. Millipedes are herbivores and are harmless to you unless you are a yucca! They also have 2 antennae and no wings.

Crustaceans are the last class of arthropods we will talk about. I bet you have eaten an arthropod. No? Sure you have! Crustaceans are shrimp, crab, lobster, crayfish/crawdads, and roly-pollies (a.k.a. pill bugs). Crustaceans have 10 or 12 or 14 legs and 4 antennae. They have 3 body parts (some crustaceans may have their head and thorax fused together) and no wings. While shrimp, crab, lobster, and crayfish are good to eat, don't eat a roly-polly.

One of the best ways to explore the amazing world of arthropods is to get outside and explore. Explorers keep notes about their discoveries. Go see how many different kinds of arthropods you can find.

When you explore outside, there are some safety rules you should follow.

- Do not kill or harm anything.
- Do not touch.
- Look closely!
- Take notes or draw a picture of what you see.



### Donate Empty Pill Vials

One hands-on program we use to teach about arthropods uses pill vials that become pitfall traps to collect arthropods in different habitats. We are in need of more pill vials! If you have some, please call the office to arrange a drop-off (575-524-3334).

Monte Vista Desert Science Day (continued from page 1)

will remember this day as one of the highlights of their 5th grade year!"

In addition to leading activity stations on the day of the event, 5th graders participated in most of the event planning as well. They wrote press releases, sent handwritten invitations to Mayor Miyagishima, School Board President Connie Phillips, and LCPS Associate Superintendent Herb Torres, who all attended the event. The 5th graders also designed the logo for the t-shirt, invited other classes, and made posters advertising the event.

The slogan of Monte Vista Elementary School is "Leadership and Learning: It's What We Do!." The Monte Vista Desert Day allowed students to embody this slogan.



Photos by Oscar Aguilar

Education Programs

YOUR donations brought the wonder of science to 4,135 K-12 students from January - March 2011. On behalf of these students, thank you for your support!

- 11-Jan Father Hay Catholic School - field trip
- 12-Jan Doña Ana Elem. - weather
- 13-Jan MacArthur Elem. - animal adaptations
- 18-Jan Tombaugh Elem. - earth movers
- 18-Jan Hillrise Elem. - animal adaptations
- 18-Jan Spring Nature Walk at the Nature Park
- 20-Jan Hermosa Heights Elem. - animal adaptations
- 21-Jan East Picacho Elem. - earth movers
- 22-Jan Teacher workshop on schoolyard water activities
- 24-Jan Camino Real MS - microclimates
- 25-Jan Camino Real MS - microclimates
- 27-Jan Central Elem. - weather
- 27-Jan Tombaugh Elem.- arthropod identification
- 28-Jan Tombaugh Elem. - arthropod identification
- 28-Jan Jornada Elem. - biomes
- 28-Jan Tombaugh Elem. - plant adaptations
- 7-Feb Camino Real MS - vertebrates
- 8-Feb Camino Real MS - vertebrates
- 9-Feb Doña Ana Elem. - solar system
- 10-Feb Sierra MS science fair judging
- 10-Feb Hermosa Heights - arthropod identification
- 11-Feb Doña Ana Elem. - field trip
- 12-Feb SCIAD Share Fair at Mesilla Valley Mall
- 15-Feb Tombaugh Elem. - weather
- 15-Feb Hillrise Elem. - weather

- 16-Feb Monte Vista Elem. - food web and biodiversity
- 17-Feb MacArthur Elem. arthropod identification
- 17-Feb Friends of Elephant Butte State Park - Asombro Institute
- 24-Feb Central Elem. - solar system
- 24-Feb Conlee Elem. - biomes
- 25-Feb Tech20 - Project WILD workshop
- 25-Feb Desert Hills Elem. - soil
- 28-Feb Sunrise Elem. (Gadsden) - career day
- 28-Feb Tombaugh Enrichment - desert plants
- 2-Mar East Picacho Elem. - weather
- 3-Mar Valley View Elem. - animal adaptations
- 4-Mar Jornada Elem. - field trip
- 7-Mar Camino Real MS - habitat stats
- 7-Mar Tombaugh Enrichment - animal identification
- 8-Mar Camino Real MS - habitat stats
- 8-Mar East Picacho Elem. - arthropod identification
- 9-Mar Doña Ana Elem. - earth movers
- 10-Mar Sierra MS - field trip
- 10-Mar Hermosa Heights Elem. - weather
- 11-Mar Vista MS - career day
- 11-Mar Sierra MS - field trip
- 14-Mar Tombaugh Enrichment - weather/ water painting
- 15-Feb Tombaugh Elem. - I'm A Scientist, Too
- 15-Feb Hillrise Elem. - solar system
- 16-Feb Monte Vista Elem. - habitat stats
- 18-Mar Sierra MS - vegetation measurements
- 28-Mar Tombaugh Enrichment - classification
- 30-Mar Sonoma Elem. - weather
- 30-Mar Alameda Elem. - field trip
- 31-Mar Tombaugh Elem. - life cycles and scientific method
- 31-Mar Sonoma Elem. - field trip
- 31-Mar Central Elem. - earth movers
- 31-Mar Mesilla Elem. - science night

Signs of Spring

In other parts of the country, people wait anxiously for cherry blossoms and the crack of the bat during baseball spring training.



Photo by Beth Morgan

Here in the Chihuahuan Desert, we look for different signs of spring - bright red blooms on claret cup hedgehog cacti, vibrant green leaves on honey mesquite, and tiny creosotebush walking sticks that only the most careful observers will spot.



Spring is also our busiest season of programming at the Asombro Institute for Science Education. There is rarely a day when one or more of our staff members is not leading a field trip or running classroom programs.

We planned two walks at the Chihuahuan Desert Nature Park that will help visitors see the first and last signs of spring. On February 18, Site Coordinator Paul Harper led visitors on a guided walk of the desert to see the very earliest signs of spring.

To conclude the season, we'll host a sunset nature walk on **Friday June 3 at 7:00 PM** at the Chihuahuan Desert Nature Park. Join us for a stroll to wrap up the season and see glimpses of what the summer may bring.



Asombro Institute for Science Education  
P.O. Box 891, Las Cruces, NM 88004-0891

YES! I want to support the Asombro Institute for Science Education's efforts to increase scientific literacy by fostering an understanding of the Chihuahuan Desert. All donations are welcome. Please sign me up in the following category:

- Quartz (\$15 +)
- Gypsum (\$50 +)
- Jasper (\$100 +)
- Obsidian (\$250 +)
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# Many Thanks

*Our sincere thanks go to the following individuals and businesses that made contributions in the first quarter of 2011 (January - March).*

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**Other Ways to Contribute**

**Albertsons Community Partners Card** - Call our office (575-524-3334) and we will send you a card. Scan your card when you make purchases at Albertsons, and they donate a percentage of your purchase to Asombro.

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Thank you!

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# Chihuahuan Desert Nature Park

*Open Tuesday - Saturday, 7:00 AM - 5:00 PM*

- From I-25 in Las Cruces, head east on Highway 70.
- Take the Mesa Grande Drive exit (at Oñate High School).
- Make a U-turn under the highway to head west. After the U-turn, stay in the right lane.
- Turn right (north) on Jornada Road.
- Follow Jornada Road north for 6.5 miles. After approximately 1.5 miles, the road is unpaved.
- Turn left at the Chihuahuan Desert Nature Park sign.
- Follow the entrance road to the parking area and trailhead.

