

PUNCH Public Engagement Monthly Newsletter Issue 16: Feb 2024

Shining New Light on Diverse Views of the Sun
with our Ancient & Modern Sun-Watching Theme



Did You Know....

...the solar corona is so thin that it doesn't carry much heat? A dining room full of solar corona at 1 million degrees K would have enough energy to heat the skin of a fingertip just 1°C — just barely enough heat to feel. - contributed by C. DeForest

Texas Girl Scouts Earned Our First Partner Patches!



Digital image provided by R. Vara
Design by D. Kolinski/B. Ingermann

PUNCH Outreach collaborated with the *Girl Scouts of Southwest Texas Council* to convene a prototype partner patch-earning event in San Antonio, TX on 24 Feb. About 50

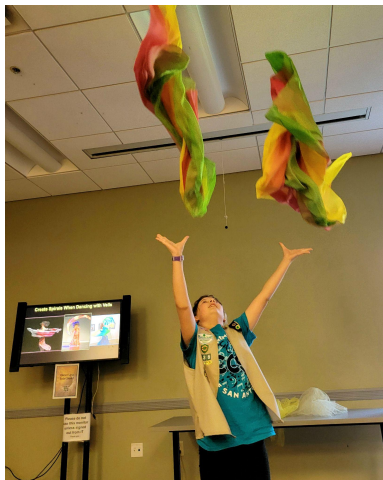


Photo by Cherilynn Morrow

girls participated in PUNCH Outreach activities including [Dancing Up a Solar Storm](#) where girls used lightweight scarves to represent different solar phenomena (see the double CME launch at left). PUNCH Science Co-I Heather Elliott was on-site in full costume to demo her dance moves and to help girls learn about the Parker spiral, CMEs, and other space weather features.


Outreach Director Writes for *The Physics Teacher*

PUNCH Outreach Director, Cherilynn Morrow's recent article titled "[NASA PUNCH Outreach products celebrate diverse views of our sun, eclipsed or not](#)" has appeared in the *AstroNotes* column of the March issue of *The Physics Teacher*. Each printed issue included one of our 3-Hole-PUNCH Pinhole Projectors. The column also invites all to commune with both NASA and Chaco Sun-watchers during the April 2024 eclipse.



New Version of Our Pinhole Projector Now Available

The newest version of our 3-Hole-PUNCH Pinhole Projector (Mark IV) features the NASA "meatball" logo. Our final print run prior to the April 8th, total solar eclipse is underway. If you would like a supply of our projectors to support your outreach event(s), please fill out the form [here](#). PUNCH team members please use [this form](#). To ensure delivery prior to the eclipse, last call is March 22nd 2024.

3-Hole PUNCH Pinhole Projector



DO NOT use this card to look directly at the Sun!

1. Facing away from the Sun, hold this card so that the Sun's rays pass directly through the holes onto a smooth surface like a wall or sidewalk (depending on the Sun's height). Move the card closer until you see a triangular, a round, and a square shape of light on the surface.
2. Observe the shapes of light as you slowly move the card farther from the surface. When all three shapes change to round, each hole is forming an image of the round Sun! Making images using only a small hole is called "pinhole projection."
3. Repeat step 1 and 2 during a solar eclipse to see inverted images of the Moon partly blocking the Sun!
4. Small gaps between plant leaves can also form "pinhole images" of the Sun. Look for round shapes of light among the shadows!

Visit the link on the other side to learn more!

Your Solar Photo of the Month

Every month we feature a photo submitted by readers that portrays a personal experience of the Sun or PUNCH.



Our PUNCH Mission Scientist, "Dr. Nicki Viall", recently had opportunities to present the [3-Hole-PUNCH pinhole projector](#) on national TV and sent us this wonderful screen capture of her in the act. Nicki was also among 17 other teammates featured in the [PUNCH Team Cards](#) at our recent Girl Scout event in San Antonio, Texas. She also serves as a Girl Scout Troop Leader in Maryland where her daughter is a Brownie. Thank you Nicki!!

Visit punch.space.swri.edu for more about the NASA PUNCH mission and its [Outreach program](#). For questions or photo submissions: Outreach Deputy Program Manager (jtrump@slco.org) & Outreach Director (cherilynn.morrow@gmail.com). [View the Newsletter Archive](#).