Explore the Universe

The Stars Challenge at Monmouth University 2009


Explorers

Explore the Universe

The universe is vast beyond our comprehension. Where do we fit in? How have events far away from us driven the evolution of life and permitted our existence? Is the Earth the only planet with life? Or is the universe bustling with living beings? How can we use science and technology to begin to answer such profound questions? These questions were addressed through a variety of hands-on activities.

We made star wheels and learned to identify some of the 10,000 stars visible on a clear night. We'll never get lost again, now that we know how to use the Big Dipper and Cassiopeia to find North. We mastered the skills required to operate a telescope, and were rewarded with views of the moon, Venus, and other celestial phenomena that took our breath away (or was it the bitterly cold February air?)

Waves and light were investigated. An understanding of both is required to further our understanding of the Cosmos. We saw how cosmic collisions, when objects from space hit the Earth with devastating consequences, influenced our past and will impact our future. Finally, we "homesteaded", looking for places beyond the Earth where humans will live one day.

Look at the stars whenever you can. Exhale with wonder. Feel the shiver run down your spine as the grandeur sinks in. Smile. Curiosity about our place in the universe is part of what makes us human.

It's been a pleasure working with you.

Mr. Coe






Look at those slinkies fly! A variety of waves were constructed and studied. We made standing waves and investigated nodes.

Our road map to the sky, the Star Wheel. Many constellations were identified. It seems like the most popular is Orion. Once you learn to see it, you'll be finding it in the sky for the rest of your life.

Talking like chipmunks was the high point of this class. We explored how the properties of waves influence the sound you hear.

Convection currents, which is the way heat moves from the core to the surface of the sun, were studied with milk and food coloring. What a colorful mess!

Telescopes are tricky!




But we figured it out. The arctic snowfields of Cedar Drive gave us a taste of how cold it is on the Moon!

The craters on the moon are magnificent.

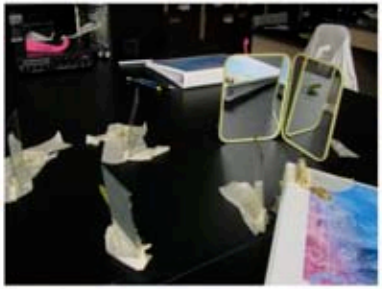
Back inside to warm up with the heat lamps.

We studied how colors effect heat absorption. Dark colors melt faster, which may explain why darker worlds are hotter than lighter ones.

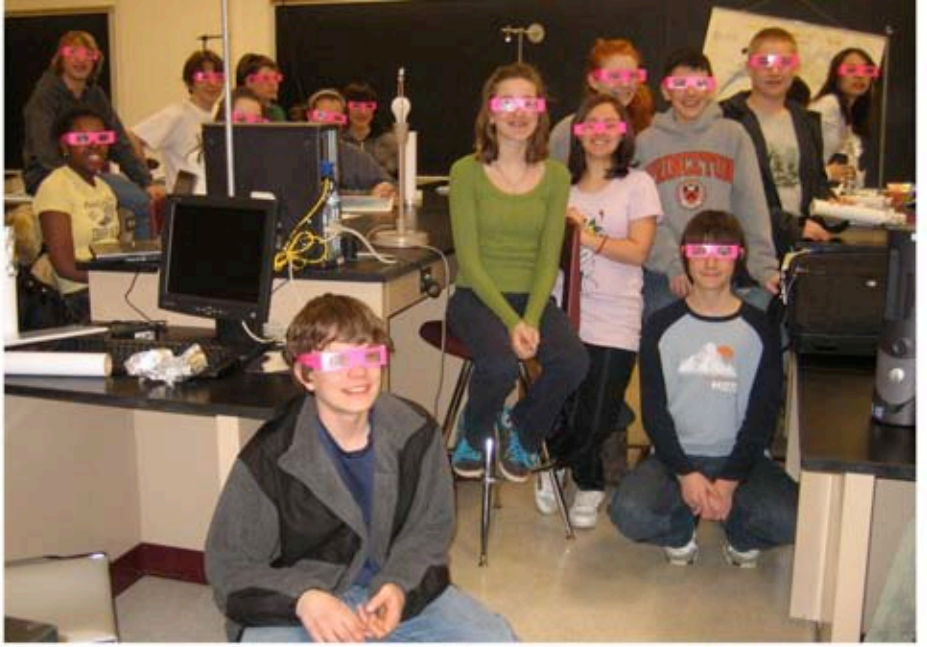
Flour and slingshots were used to study impact events. Also to create new fashion trends.

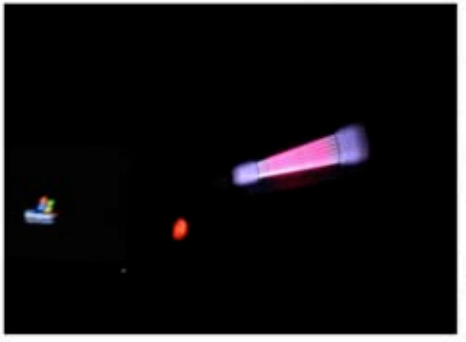
Tom Sawyer would have been proud of our slingshot skills.

Mirrors were used to study light. And to show us how fabulous we looked.

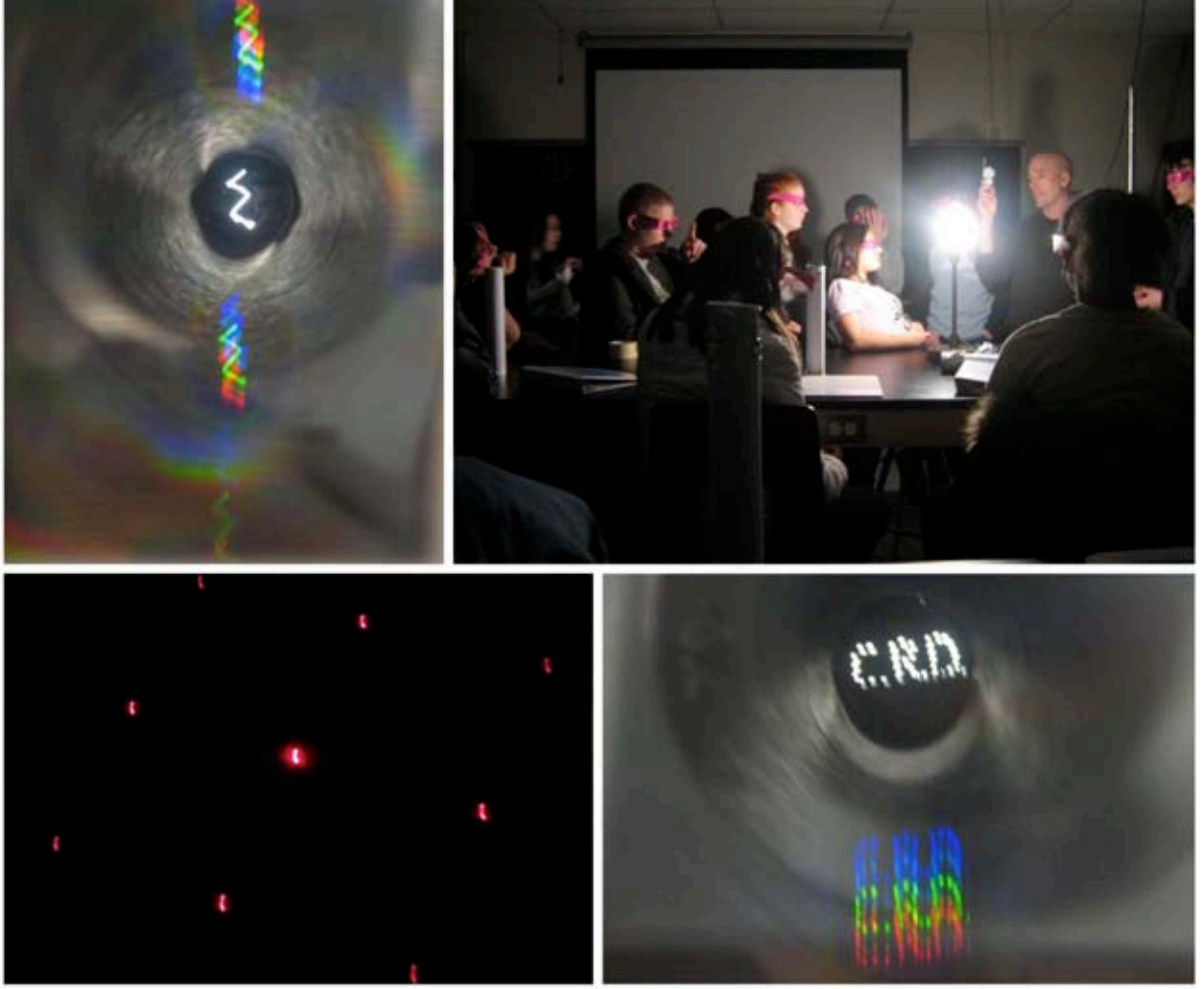


We made lasers run a maze. Mr. P, the ultimate astronomer, came and showed us some amazing sights with his magnificent telescope, including Saturn, complete with rings!





A successful investigator must be able to observe and record information.



Art and science merged as we created personalized spectroscopes

Aluminum foil and mailing tubes helped us create our masterpieces.

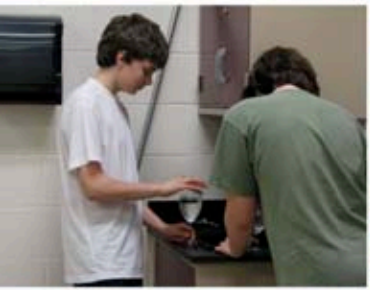
The Star Lab was extraordinary! A planetarium and IMAX theatre rolled into one.











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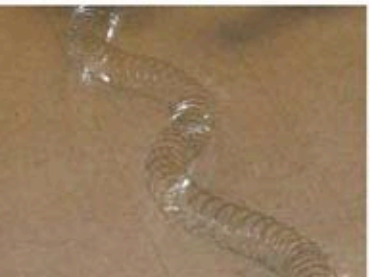
UNIVERSITY


Made on a Mac