The second cohort of Elementary-CUSP teachers completed a 4-week (12-day) summer institute in science and mathematics. The 42 participants from 21 districts were paid stipends of $1500 each and were provided with notebooks in which they planned and carried out investigations and worked to implement inquiry-based units in their classrooms. Each teacher received an assortment of standards-based teaching materials. They will be visited during the school year by the PRISM Follow-Up Team of retired classroom teachers who co-teach lessons with them. Follow-up workshops on Thursday evenings are available for those wishing to extend the learning and the networking as well as the fun. The first topics were Oct. 2 - Improving Retention and Addressing Misconceptions, and Oct. 16 - Inquiry Extended: Planning Plant Investigations with Fast Plants. Adopted-Professors are available to work in classrooms to provide science activities for their students. There is still room for the upcoming topics:

Nov. 13 - Insect Investigations - The role of insects in the animal world and their relationships with other arthropods; embedded assessments, big ideas, resources.

Nov. 20 - 2D/3D Geometry - Explore how to promote student understanding of shapes, spatial relationships, and visualization.

Dec. 4 and Dec. 18 - Assessment Strategies, Part I and II - Learn what you really need to do in order to prepare children for standardized testing.

PRISM Programs Raise Student Achievement Levels

An external evaluation team hired by the NJ Department of Education to monitor the Math-Science Partnerships at Rutgers, Rowan, and Montclair State University reported that the CUSP middle grades project of PRISM showed measureable impacts (statistically-significant improvement in content knowledge) on participating teachers and their students. No other project in NJ produced measurable impacts on the achievement of students of participating teachers.
A "Rocking" Experience

A team of three e-CUSP educators attended a five-day leadership academy in Houston, Texas. After a year of implementing new approaches, techniques, and concepts in the teaching of science and mathematics acquired through the e-CUSP program, they extended their expertise to include earth science.

The Earth Science Leadership Academy, sponsored by Exxon-Mobil and the American Geological Institute (AGI), provided K-5 teachers with deeper knowledge and understanding of Earth systems, while aligning content knowledge with pedagogy and the National Science Standards.

Nancy Lasher from the Orange Public Schools District, Linda Tilli from the Little Ferry Public Schools District, and Anna Mazzaro from PRISM at Montclair State University, agreed that the Academy strengthened and enhanced their content knowledge of earth science. They now feel a new enthusiasm and interest in the topic. During this school year Earth science will be taught in a new way – with meaningful investigations, real life applications, better understanding, and sequenced to emphasize important connections.

Their students will never look at rocks, soils, and minerals in the same way that they did before, because their teachers’ experiences have changed their own world.
The Rainforest Connection Live! Welcomes New School Partners

As internet access and video technologies improve, it has been possible to bring new schools into the Rainforest Connection network, enabling hundreds of students to experience live conversations with scientists for the first time. New programs and partners have broadened the network, and the schedule of programs, to include topics in social studies and earth science as well as the life sciences. The use of simple webcams has opened access to schools on stringent budgets, and partners in remote eco-lodges with limited satellite connections. See the videoconference topics on the website for PRISM at http://prism.montclair.edu

Pascack Valley High School Teachers Bring Alive Research In their Classrooms

Fran Zak and Karen Lyons were first in their school district to introduce live videoconferences between researchers and their students. The two science teachers established webcam connections right in their individual classrooms with PRISM’s roving video teams in Panama, Belize, and Australia over a period of 3 months. Their videoconference topics included: bird migration, indigenous flora and fauna, animal behavior, and water ecology. After students got over their initial shock that they were watching ships passing through the Panama Canal in the background, students posed questions to the research team and got immediate answers. A highlight of their video-chat with Dr. Willis in Australia was watching a videotape taken earlier in the day of a kangaroo and her joey in the process of climbing into the mother’s pouch. Fran and Karen hope PRISM will continue to videoconference from rainforests around the world because this is authentic learning using technology in their classroom.

Below: Fran Zak with her class videoconference with Mr. Harry Lagerman in a rainforest in Panama.
Teachers Studied in the Tropics

Edward Cohen, a science teacher in Piscataway, spent August in Panama. Eddie (resting in hammock below) was the recipient of the PRISM Technology Leadership Award, in recognition of his promotion of authentic learning by video-chats to expand inquiry lessons in science. The grant covered expenses for Cohen to join the Panama Field Experience. The course was led by Dr. Jacalyn Willis, Gregory Willis, and Anna Mazzaro. Eight teachers from the USA and 3 from Panama formed bonds for future videoconference partnerships between their classes. They studied tropical habitats while staying at different eco-lodges and spent four days at a Smithsonian field station where they mingled with researchers.

One of the primary goals for Mr. Cohen was to learn how scientists solve real-world problems and then share that process with teachers and students in his own district. He plans to enable students to investigate and extend their critical thinking skills by connecting classroom knowledge with problem-based phenomena taking place in Panama. Mr. Cohen provided detailed lessons from his own experiences that were transmitted back to Piscataway summer camp through videoconferences and podcasts.
To PRISM: Reflections from e-CUSP Teacher Deb Sirvidio

[Editor’s Note: Deb is happily in a new job where she is appreciated and honored for her expertise and skills as a science teacher, after some very bad experiences described below. We are proud to have her as an e-CUSP “graduate”! And proud she has been accepted to the NSTA Academy. Deb worked at PRISM this summer as a role model and helper in the e-CUSP summer institute.]

Dear PRISM: Over the weekend, I found out that I was accepted as a fellow into the NSTA New Science Teachers’ Academy. I am so thrilled!

I want to thank all of you at PRISM for the networking, ideas, and materials that you have shared with me. Most of all, you have had a huge impact on my career as a teacher. You have all inspired me not to just go with the flow, teach to the test, or settle when things are good. I have always loved science. But now it has become my passion and ranks right up there with baseball! I have learned to keep asking the right questions as well as not to give the easy answer. I wanted to jump up and hug all of you when I found out about NSTA because of all you have given me over the course of a year.

My teaching career had a very rough start. Let’s just say my boss was not all there. I was constantly told my methods were inadequate and she even used the word stupid at one point. Because it was my first solo assignment, I really began to doubt myself. I even began to believe her. When she fired me, I was devastated. She said my philosophy of education was not conducive to learning. I pushed for an explanation and was told three reasons:
1. Too many labs and inquiries;
2. Didn’t use the textbook for out loud reading every day;
3. Too untraditional.
[Editor’s Note: What was this administrator thinking?? Needless to say, Deb uses all of these methods in her new job and is valued for her untraditional approaches.]
.... Thank you! Thank You! Thank You! ... I am rested & rejuvenated and ready to return!

-- Deb Sirvidio

E-CUSP teachers shared what they learned and planned lessons for the new school year.

Online enrollment for the 2009 Summer Institute is available now:
http://prism.montclair.edu
e-CUSP Evening Follow-up Calendar

Active Learning Experiences on THURSDAYS from 5:00 - 8:30 PM.
PRISM Meeting Room - Reservations Required. Priority to 2008 cohort:
2007 cohort welcomed on a space available basis! Dinner/ Parking Free

Nov. 13 - Insect Investigations - The role of insects: embedded assessments, big ideas, resources, and life cycle concepts. Slideshow for insect lessons provided for your travel drive, so don't forget to bring it!

Nov. 20 - 2D/3D Geometry - Explore how to promote student understanding of shapes, spatial relationships, and visualization.

Dec. 4 and Dec. 18 - Assessment Strategies, Part I and II - Learn what you really need to do in order to prepare children for standardized testing.

Jan. 15 - Number and Operations - Deepen your understanding and ability to teach basic operations with whole numbers and fractions.

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Bristol-Myers Squibb
Center for Science Teaching and Learning

Studying habitats - E-CUSP Summer 2008