Elective Professional Learning Through CONNECT-ED Phase II

Elective learning should be strategic to your PLC’s goals and action plan and research based, that is, consistent with what the literature says is effective professional learning.

Your PLC is not required to engage in elective learning, but know you have access to it either through district resources already budgeted or your PLC Grant funds.

This is a compilation of resources available through CONNECT-ED Consortium partners and other local and national sources. You are not limited to these, however.

NOTE TO CONNECT-ED DISTRICTS:
Is there relevant PD scheduled in your district that could be opened to teachers from other Consortium districts? Benefits include cross-pollination of ideas/faculties and (potentially) sharing/reducing costs.

If you provide us information about relevant PD in your district, we will post it on a “CONNECT-ED PD Exchange” page on the Rider website. Examples might include: content, inquiry, or assessment workshops; curriculum training; action research; lesson study; or similar.
Institutes, Academies, Seminars, Conferences, Lesson Study, Webinars, On-line learning, Podcasts, and Other Opportunities

From CONNECT-ED Partners:

Partner Districts:

Montgomery Township School District:

2010 Central Jersey Modeling Institute: July 6 - 22, 2010

Contact: Jason Sullivan at jsullivan@mtsd.us, 609-466-7602 x 6569 (office).

Montgomery Township School District is excited to host the Central Jersey Modeling Physics & Chemistry Institutes in the Princeton area in summer 2010. Modeling Instruction in physics and chemistry is a research-based reform effort initiated at Arizona State University. The modeling physics curriculum was the only high school science program recognized as exemplary by the U.S. Department of Education (2001). It has been implemented in classrooms throughout the country and has been shown to produce dramatic improvements in student learning. To learn more about modeling instruction programs, visit: http://modeling.asu.edu/

The 2010 workshops will cover the mechanics units of the modeling physics curriculum resources and a second workshop will be offered on the modeling chemistry curriculum resources. Instructors of physics, chemistry, physical science, biology and earth science are welcome to attend. The curriculum materials present a coherent and consistent approach to physical science, physics, and chemistry. The summer 2010 workshops will be designed for instructors teaching physics and chemistry at all levels. We also hope this Institute will provide pre-service teachers with access to the modeling instruction. The program aims to:

1) improve both content and pedagogical knowledge in physics or chemistry by incorporating the modeling cycle, inquiry methods, critical and creative thinking, cooperative learning, and effective use of classroom technology in instruction
2) enhance student learning and get them more excited and articulate about science.
3) establish a local community of support for teachers who use the modeling approach.
4) use research instruments to guide their teaching practice.
5) address the implementation of standards based instruction.

More details about the program:

- **DATES:** July 6 - 22, 2010
- **LOCATION:** Montgomery High School, Skillman, NJ
- **TIME:** 8:00 AM - 4:00 PM, (Week 1:T-F, Weeks 2&3:M-Th)
- **FOLLOW-UP:** Two follow-up evening sessions to help with classroom implementation during 2010-11
- **COST:** $600.00
  - for possible funding grants visit: http://modeling.asu.edu/modeling/professdevelop.html
  - Modeling Workshops qualify for NCLB Title II-A funds
- **GRADUATE CREDIT:** Instead of the $600 fee, the workshops may be taken for 3 graduate credits through Rider University at $435/credit hour.
- **Physics Workshop Leaders:**
  - Craig Buszka (cbuszka@mtsd.us) & Jason Sullivan (jsullivan@mtsd.us)
- **Chemistry Workshop Leaders:**
  - Donghong Sun (dsun@mtsd.us) & Lisa Chedid (lchedid@mtsd.us)
Raritan Valley Community College:
  ● **Science Education Institute:**
    Go to [http://www.raritanval.edu/planetarium](http://www.raritanval.edu/planetarium) for program descriptions, fees, and registration information.
    Contact: Wil van der Veen (wvanderv@raritanval.edu, phone 908-526-1200, ext. 8566) or Theresa Moody (tmoody@raritanval.edu, phone 908-526-1200, ext. 8942).

Rider University in collaboration with Princeton University:
  ● **CON-QUEST Summer Institute, July 12 -23, 2010**
    Week 1 (July 12-16): Physics/Astronomy
    Week 2 (July 19-23): Earth Science

  **Location:** Rider University’s Bristol-Myers Squibb Center for Science Teaching & Learning

  **Cost:**
  Elementary and middle grades teachers must register for two full weeks:
  $1,300/teacher ($500 program fee paid to Princeton, plus an $800 stipend paid to the teacher).
  High School teachers may register for either one or two weeks: $650/teacher per week ($250 program fee paid to Princeton and a $400 stipend paid to the teacher).

  **Note to CONNECT-ED PLCs:** If you use WIRED funds to help send teachers to CON-QUEST, those funds may be applied only to the program fee. No WIRED funds may be used toward paying stipends for time attending the institute, since no tangible product (such as a curriculum) results from attending.

  **Registration:** Registration is online at the Princeton University QUEST website: [http://teacherprep.reuniontechnologies.com/dynamic.asp?id=quest](http://teacherprep.reuniontechnologies.com/dynamic.asp?id=quest)

  Contact: Carrie Tretola at Rider (ctretola@rider.edu, phone 609-896-5000, ext. 7016), or Anne Catena, Ed.D., Director of Professional Development Initiatives at Princeton (acatena@princeton.edu, 609-258-2537).

Rider University:
  ● **CONNECT-ED Mini-Institutes** (full-day Big Idea Module/BIM presentations). Go to [http://www.rider.edu/2559_16462.htm](http://www.rider.edu/2559_16462.htm) for more information and a list of all available BIMS and their content. Five Mini-Institutes per year are covered by grants and can be offered to C-E districts at no cost to the district. Beyond those five:
    ○ In your district, for up to 25 participants: $2,500.00 per full-day institute;
    ○ At Rider: $175.00 per participant
    ○ In another Consortium district: cost-sharing to be determined by host district

  ● **Inquiry Workshops:** Beginner Level and Advanced Level programs are available (full-day)
    ○ In your district, for up to 25 participants: $1,000.00 per institute
    ○ At Rider: $100.00 per participant
    ○ In another Consortium district: cost-sharing to be determined by host district

  ● **Atlas for Science Literacy Workshop:** How to use the Atlas and how to apply it to your teaching and/or curriculum
In your district, for up to 25 participants: $1,000.00 per institute
At Rider: $100.00 per participant
In another Consortium district: cost-sharing to be determined by host district

- **Content Workshops** led by Rider faculty and customized to your needs (full-day or half-day):
  - In your district, for up to 25 participants: $1,000.00 (full-day) or $500.00 (half-day).
  - In another Consortium district: cost-sharing to be determined by host district

- **Curriculum Showcase/Demonstration** (3 hours)
  - In your district: $500.00 for up to 25 participants
  - At Rider: $50 per participant

Princeton University:
- **QUEST: July 12-23, 2010** (plus follow-up programs)
  QUEST content over the two weeks are: Oceans; Weather and Climate; Energy in the 21st Century; and Geo-Hazards (earthquakes, tsunamis, and more.)

  **Cost:** $1,300/teacher/two weeks ($500 program fee to Princeton and $800 stipend paid to the teacher)

  **Registration:** Go to: [http://www.princeton.edu/teacher/quest.htm](http://www.princeton.edu/teacher/quest.htm). Choose "Application" and follow the instructions.

**NEW!!** "**QUEST Scholars Program**" The 2010 QUEST Scholars Program is open to 10 novice (first and second year) Grade 5-9 science and math teachers. The program pays an honorarium of $2000 and runs July 1- July 30, plus school year follow-up programming. QUEST Scholars information, including how to apply, is found at [http://teacherprep.reuniontechnologies.com/dynamic.asp?id=quest](http://teacherprep.reuniontechnologies.com/dynamic.asp?id=quest). The application deadline is April 30, 2010.

Contact: Anne Catena, Ed.D., Director of Professional Development Initiatives, Princeton University ([acatena@princeton.edu](mailto:acatena@princeton.edu), 609-258-2537 phone).

THE FOLLOWING PRINCETON UNIVERSITY TEACHER PROGRAMS ARE FREE.

**2010 Plasma Science and Fusion Energy Institute:** July 26 - 30, 2010

Current physics teachers of grades 9-12 are eligible to apply as are advanced middle school teachers of physical science. Selection is limited and is based, in part, on the applicant’s teaching, research, and educational experience.

The Plasma Science and Fusion Energy Institute is a one-week intensive workshop designed to provide the opportunity to study plasma physics and fusion energy through experimental research in our state-of-the-art laboratories. Participants will perform experiments, in collaboration with laboratory scientists, that investigate the basic properties of plasmas. Finally, plasmas are ideal to illustrate many concepts in high school physics curricula including waves, atoms, nuclear reactions, relativity, electricity and magnetism. An integral part of the
Institute will be the development of new plasma-based lesson plans, student-led investigations and demonstrations.

All participants will receive equipment similar to what is used during the workshop to take back to their classroom. In addition, up to $2,000 is available through a mini-grant to purchase additional equipment after completion of the workshop.

For more information:  [http://science-education.pppl.gov/PlasmaCamp.html](http://science-education.pppl.gov/PlasmaCamp.html)

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The Princeton Plasma Physics Laboratory (PPPL) ACTS program is a six-week mentored research experience for high school and middle school teachers that will run from July 6 - August 13, 2010.

Eligible participants are teachers of science in grades 6 to 12, with degrees in a science discipline, mathematics, or engineering. Participants are placed in a particular research project based upon academic preparation, teaching assignments, experiences and interests. Research opportunities include physics, engineering, electronics, computer science, and environmental science projects.

Participants will work with PPPL scientists, engineers, and Master Teachers. At the end of the summer, teachers can apply for $2,000 mini-grants for classroom supplies that support curricula developed based upon the research experience.

Support includes a travel/housing supplement and $800/week stipend. In return, participants are expected to attend weekly meetings with a master teacher, present their research to a seminar of their peers at the end of the summer, and provide reports of professional development and leadership during the school year. Funding is available for professional development to other teachers at regional and national conferences.

Questions about the program should be directed to James Morgan (jmorgan@pppl.gov).

For more information and to apply:  [http://www.scied.science.doe.gov/SciEd/ACTS/about.htm](http://www.scied.science.doe.gov/SciEd/ACTS/about.htm)

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**Materials Camp for Teachers:**


The Princeton Institute for the Science and Technology of Materials at Princeton University and ASM International (The Materials Information Society) are presenting a free week long, hands-on laboratory experience to assist teachers to use materials science and engineering techniques in their classroom. NJ teachers receive 30 continuing education hours for their participation! The program dates will be announced soon.

Participating teachers will get a comprehensive series of low or no cost laboratory demonstrations in materials science to use in chemistry, physics, math, technology, and industrial arts classes.
A team of highly experienced "Master High School Teachers," university professors, and industrial experts will be the instructors for the highly interactive, hands-on curriculum.

We are seeking 30 high school science and technology teachers from New Jersey to participate in the program. Since it is not a residential program, participants should be within a daily driving distance (< 1 hour or so) of Princeton, NJ.

The tentative daily schedule runs from 8:30-5:00 each day, for 5 days. Lunch and Snacks are provided each day.

For updated information, please contact Dr. Daniel Steinberg (dsteinbe@princeton.edu) or call 609-258-5598.

Some Other PD Providers:

Local Sources
- Kean University
  - Center for Innovative Education (CIE): [http://cie.kean.edu](http://cie.kean.edu)
- Montclair State University: PRISM (Professional Resources in Science & Mathematics)
  - Contact: Jacalyn Willis (phone: 973.655 .7753. Email: wiullsj@mail.montclair.edu )
  - [http://prism.montclair.edu](http://prism.montclair.edu)
- New Jersey Institute of Technology (NJIT):
  - Center for Pre-College Programs: Phone: 973-596-6445
- Rutgers University
  - Center for Effective School Practices (CESP): [http://cesp.rutgers.edu](http://cesp.rutgers.edu)
- Stevens Institute of Technology
  - Center for Innovation in Engineering & Science Education (CIESE): [www.ciese.org](http://www.ciese.org)
- The College of NJ
  - Center for Excellence in STEM Education (CESE): [www.center4stem.org](http://www.center4stem.org)

National Sources
- National Staff Development Council (NSDC), [www.ndc.org](http://www.ndc.org)
- National Science Resources Center (NSRC) programs: Smithsonian Academy (summer) and other programs/services, [www.nsrconline.org](http://www.nsrconline.org)
- Keystone Center: Key Issues Institute; Climate Status Investigations (CSI), [www.keystonecenter.org](http://www.keystonecenter.org)
- Biological Sciences Curriculum Study (BSCS), [www.bscs.org](http://www.bscs.org)
- Process Oriented Guided Inquiry Learning (POGIL), [www.pogil.org](http://www.pogil.org)
- National Science Teachers Association (NSTA), [www.nsta.org](http://www.nsta.org)
- National Council of Teachers of Mathematics (NCTM), [www.nctm.org](http://www.nctm.org)
- Annenberg Media (on-line): [www.learner.org](http://www.learner.org)
- PBS (on-line): TeacherLine, in collaboration with WGBH Teachers’ Domain: [www.pbs.org/teacherline](http://www.pbs.org/teacherline) or [www.teachersdomain.org](http://www.teachersdomain.org)

Professional Memberships and Publications (print and digital)

NSDC: [www.ndc.org](http://www.ndc.org)
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