Dear Indiana STEM Teachers,

The following is a fall update about opportunities in STEM education at Discovery Park and Purdue. These opportunities include events for teachers and students.

Please share these opportunities with your students and colleagues!

If you have any questions or comments please contact us.

Best wishes for a great school year!

Chris Foster
Director of P-14 STEM Programs at Discovery Park
http://www.purdue.edu/dp/p12stem/

2011 Updates:

P-12 Portal

Purdue has created a new web portal that lists P-12 opportunities for teachers, students, and parents both on campus and off. This searchable education source includes activities from all areas of campus. Please go to http://www.purdue.edu/p12portal to access the portal.

NEXTRANS High School Essay Competition

The NEXTRANS Center at Purdue University is sponsoring its third high school essay competition for students residing in Indiana. The contest’s goal is to encourage students to consider how integral transportation is to the future of Indiana and our nation, and potentially interest them in transportation-related careers and/or higher education in the field. NEXTRANS is seeking articulate and well-researched essays of up to 1500 words on the following topic: What factor(s) do you think will most affect the future of transportation in Indiana and across the nation?

Please submit a clear, well-organized and well-researched essay of up to 1500 words adhering to the provided topic.
• Entries must be typed in 12-point font with one-inch margins, printed on one side.
• Please staple entries, include page numbers and a title.
• The student’s name should not appear on the essay itself.

On a separate cover sheet, please provide the following information:
• Name
• Contact information (address, phone and email)
• Current grade in school
• Name and location of high school

Please mail these materials on or before **December 9, 2011** to:
NEXTRANS 2011 High School Essay Competition
3000 Kent Avenue
West Lafayette, IN 47906

All public, private and homeschooled high school students (grades 9-12) currently residing in Indiana are eligible to enter. Additional questions may be directed to Andrea McIntyre at 765-496-9734 or via email at andream@purdue.edu.

**NEXTRANS High School Internship in Transportation**

([http://www.purdue.edu/discoverypark/nextrans/edu/k12.php](http://www.purdue.edu/discoverypark/nextrans/edu/k12.php))

Headquartered at Purdue University, the NEXTRANS Center is one of ten Regional University Transportation Centers selected competitively by the U.S. Department of Transportation to serve as leaders in meeting the nation's need for safe, efficient, and environmentally-sound transportations systems.

The Center is currently seeking qualified applicants for the NEXTRANS High School Internship in Transportation. This program provides qualified students with the opportunity to complete a 4-6 week program of research and activities at Purdue University. Participants will be exposed to the field of transportation through hands-on research activities under the guidance of a NEXTRANS Research Assistant. By fostering a challenging environment in which students learn through discovery, the Center hopes to attract a new generation of leaders to transportation-related careers.

Applications are accepted on a rolling basis, and each 4-6 week program is scheduled to suit the individual student’s needs. Students will work approximately 20 hours per week at the NEXTRANS Center, and will be compensated for their time ($8-10 per hour). Applicants should live in close proximity to the West Lafayette / Purdue University area.

To apply, or for additional information, please contact Andrea McIntyre via phone 765-496-9734.
To learn more about NEXTRANS, visit [www.purdue.edu/discoverypark/nextrans](http://www.purdue.edu/discoverypark/nextrans)

**Purdue zipTrips**

An innovative program to create science-based electronic field trips for students in grades 6–8. These field trips use technology to provide virtual visits to the West Lafayette campus, where students will meet scientists from Purdue’s School of
Veterinary Medicine, Purdue Agriculture, and Discovery Park, and learn first-hand about their work. Purdue zipTrips is funded by a grant from the Howard Hughes Medical Institute.

Visit [www.purdue.edu/ziptrips](http://www.purdue.edu/ziptrips) to learn more.

**Indiana Space Grant Consortium**

The Indiana Space Grant Consortium (INSGC) includes 23 affiliates who work together to promote STEM education initiatives related to NASA themes and careers in the State of Indiana. Purdue University in West Lafayette, IN, serves as the INSGC lead institution under the direction of Dr. Barrett Caldwell.

Please see website for more details and opportunities. [http://www.insgc.org](http://www.insgc.org)
For questions contact: [insgc@purdue.edu](mailto:insgc@purdue.edu)

**Other Purdue Opportunities:**

**Lugar-Purdue Future of Forestry Program and Scholarship**

Do you know a student interested in forestry, or an ag or science teacher? Purdue University and Richard Lugar, U.S. Senator and woodland owner from Indiana, are teaming up to show students just how exciting the science and management of forests can be. We’re asking high school agricultural education and science teachers to recommend and sponsor qualified students in grades 9-11 for the Lugar-Purdue Future of Forestry Program.

Students take an online course about basic forest science and plan and conduct an independent research project under adult supervision. Upon completion they take away a better knowledge of forest science, an award certificate from Senator Richard Lugar, and consideration for the $3,000 Future of Forestry Program Scholarship in Purdue’s Department of Forestry and Natural Resources.

Please share information on this program with local high school teachers or students. For more information, see [www.ag.purdue.edu/fnr/Lugar](http://www.ag.purdue.edu/fnr/Lugar).

**Announcements**

**Discovery Lecture Series**
September 26th, 2011  
7:30 PM  
"Live Simply So That Others May Simply Live"  
*Ed Begley Jr.*  
Actor-activist  
Stewart Center, Fowler Hall  
**Event Flyer** (pdf)  

**Celebrate Science Indiana**  

October 8th  
Indiana State Fair Grounds, South Pavilion  
8:00am-5:00pm  

**Resources available at Discovery Park:**  

**Network for Earthquake Engineering Simulation Operations (NEES):**  

The NEES Community includes researchers from across the nation designing and running experiments at the fourteen geographically distributed test facilities. The resulting network contributes research results to inform the codes and designs of safe structures. Much has been accomplished toward these goals since the formation of NEES in 2004. The knowledge and understanding gained through this network is critical to designing resilient communities that will survive earthquakes and recover quickly in the aftermath.  

**NEES update for P-12 Engagement Efforts**  

Recent activities hosted by NEES include participation at Purdue Day at the State Fair, and partnering with the Minority Engineering Program summer camps held at Purdue in June and July.  

Upcoming activities include partnering with Battle Ground Middle school for outreach activities and hosting the pre-show activity for Doktor Kaboom! at the Loeb Playhouse on November 20 at 3:00 pm.  

We have lesson modules dealing with *Make Your Own Earthquake* and *Survive the Wave* on our website at [www.NEES.org](http://www.NEES.org) in the Learning and Outreach area.
We have recently acquired a 16 foot tsunami wave generator which we have on display in our lobby on the 3rd floor of DLR. We welcome visitors to experiment with the wave generator at any time.

Our general contact info is:

Website: www.nees.org

Facebook: www. Facebook.com/neesinfo

Twitter: neesinfo

For information about classroom activities or demonstrations please contact one of the following:

Pamela McClure, Instructional Designer, NEES  Dr. Keith Adams, Director: Education, Outreach & Training, NEES

pmcclure@purdue.edu  ktadams@purdue.edu

1.765.496.3134  1.765.494.6519

Purdue Homeland Security Institute

Visit us at:  http://www.purdue.edu/dp/phsi/

Discovery Park Science Education Resources, K-12 Teachers:

Programs at Discovery Park with resources for teachers.

http://www.purdue.edu/discoverypark/learningcenter/resources/index.php

Tours of Discovery Park

Have you and your class been to Purdue University’s newest research facilities? We would like to invite you to take a tour.

http://www.purdue.edu/discoverypark/main/scheduleTours.php

Class Video Link

Teacher Links

Celebrate Science Indiana-October 8th Indiana State Fair Grounds, South Pavilion

http://celebratescienceindiana.org/

Indiana Earth Science Teachers Association

http://tech.groups.yahoo.com/group/IESTA/

National Science Teacher’s Association
http://www.nsta.org/?lid=logo

STEM Education Resource Center
http://www.pbs.org/teachers/stem/

National Science Digital Library
http://nsdl.org/collection/stem-education/?set_css=large

Additional Links
http://www.stemresources.com/
http://www.caseforlearning.com/

We hope this information will be of use to you. Please send your comments and suggestions to Laura Warner (lawarner@purdue.edu).

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