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Indiana Dunes, Science, and YOU!

Friday, May 2, 2014

Indiana Dunes Visitor Center
9:30 a.m. - 2:00 p.m.



Great Lakes Research
and Education Center

Check out this opportunity for your middle- and high-school classes to talk with local scientists, learn about their research within Indiana Dunes National Lakeshore, and spend time with researchers out in the field! Students will discover how research is used to solve real-life dilemmas, can try their hands using scientific tools, and will see how scientists use inquiry in their investigations! Activities align with state learning standards. Pre-registration is required and space is limited.

To register contact the Indiana Dunes National Lakeshore Scheduling Office at 219-395-1885.

Saturday, May 3, 2014

Indiana Dunes Visitor Center
1:00 p.m.

Check out this opportunity to talk with local scientists, learn about their research within Indiana Dunes National Lakeshore, and spend time with them out in the field! Come discover how research is used to solve real-life dilemmas, see how scientists use inquiry in their investigations, and try your hand using scientific tools!

This program is geared toward individuals and families, and will begin at 1:00 p.m. Saturday, May 3, in the Indiana Dunes Visitor Center Auditorium on State Road 49 just south of US Highway 20 in Chesterton, Indiana.

Featured scientists from Indiana University, Indiana Dunes National Lakeshore, the United States Geological Survey, and Valparaiso University will make presentations on their research and lead field trips highlighting their investigations. Research topics include the impacts of climate change on the endangered Karner blue butterfly, restoration and research on Mt. Baldy and coastal dune systems, and the impacts of logjam removal along the Little Calumet River. One project will showcase undergraduate students from Valparaiso University studying the effectiveness of three techniques used to re-vegetate unwanted "social trails" in the park.

According to Wendy Smith, education coordinator at the Great Lakes Research and Education Center, "This is exciting! These students are not only learning about a resource management issue, they are also learning how to conduct research that will help solve a very real problem that threatens the natural ecosystem in the dunes. Their findings will allow park managers to utilize the most effective technique in the future, not only helping to restore the sand dunes, but also potentially saving the park both time and money."

Following the research presentations, the public will be invited to join scientists in the field, with trips to West Beach, Howe's Prairie, and the Great Marsh in Indiana Dunes National Lakeshore.



www.worldscienceu.com

Prof. Brian Greene Launches Unique Online Physics Course

Mathematics and Physics Professor Brian Greene launched two free online courses on March 6 as part of his new online teaching initiative, World Science University. The classes are designed to use the capabilities of digital media to create a new kind of learning experience that makes science more visual, interactive and compelling.

Both introductory courses focus on Einstein's theory of special relativity, a theory on space and time that examines how reality behaves at very high speeds. The courses were open to anyone interested in the field of science. The first three-week course focused on concepts and was designed for people who do not have a lot of technical background. The second class, which was more math focused and aimed at anyone with high-school math proficiency, is scheduled to run for 10 weeks. These courses are not

for credit, but are being used by Greene and colleagues from other campuses as part of their teaching methods.

"I don't want to use the Internet as a new delivery vehicle for old-style teaching" "I launched this project with the aim of using digital innovation to make it easier, more exciting and more gratifying for students to learn science," says Greene. He recorded his lecture not in a classroom but in a lower Manhattan loft in order to provide a compelling experience for online viewers. "When students can visualize abstract ideas through carefully crafted animations, play with new concepts through interactive demonstrations, be led by the hand through exercises and problems, and have many confusing issues addressed through guided question sessions, they learn the material more deeply."



<http://pblinstitute.com/>

2014 Project-Based Learning Institute

When?: June 23–26, 2014

Where?: Chapel Hill 7th & 8th Grade Center in Indianapolis, Indiana

What?: The PBL Institute immerses educators in a PBL experience by challenging them to create a rigorous and relevant PBL unit to implement in the upcoming school year. In content-specific rooms, PBL practitioners will work to facilitate teacher growth and understanding of PBL planning and implementation.

Over four days, participants will:

- Plan their own PBL unit with the support of facilitators and colleagues who teach similar content and/ or grade levels*

- Discuss of how PBL can make educators more effective and how that could be reflected in teacher evaluation

- Network with PBL practitioners

- Hear from students and administrators about PBL experiences

- Learn about the process of becoming PBL certified in the State of Indiana

School teams of five or more people qualify for a 20% discount between March 1 and May 9, 2014. A team is qualified as five or more individuals from the same team paying on the same credit card, purchase order or check. No group discounts will be applied after May 9, 2014.



<http://geocntr.org/>

2014 Middle School Earth Science Teacher Leadership Academy

ExxonMobil Exploration and the American Geosciences Institute are pleased to announce that they will be holding a national Leadership Academy in Houston, Texas, July 20-25, 2014 for Earth science middle school teachers.

The program starts with a reception and dinner on the evening of the 20th and concludes at noon on the 25th. The Academy will provide teachers with Earth science content, hands-on activities, resources and field experiences that they can use with their students in the classroom and with their colleagues in professional development settings. The program will be residential in Houston, and all travel, lodging and subsistence costs will be covered by a grant from ExxonMobil. We have space for 28 participants, and encourage teams of four to attend from each state or school district (although this is not a requirement).

Topics covered during the 40 hours of the workshop will include:

- Introducing Earth system science to students;
- Teaching Earth science with an inquiry approach;
- Investigations to help students understand the Nine Big Ideas in Earth Science (from the Earth Science Literacy Principles) and the Next Generation Science Standards;
- Hot topics in Earth science;
- Resources for learning and teaching Earth science (Center for Geoscience Education, Investigating Earth Systems, Nine Big Ideas videos and many others);
- The work of geoscientists in the energy industry;
- Using learning centers in classroom

and workshop settings;

- Planning, conducting and evaluating successful Earth science workshops.

We are looking for teachers who already are, or who have the potential to become science professional development leaders in their home school districts. Please send names and e-mail contact information for nominees to Colin Mably, American Geosciences Institute, at CMably@aol.com.

We encourage science supervisors and principals to nominate teachers for the Academy by the deadline of April 30, 2014.

To download the application form, please go to: (application-form-middle-school). Each nominee should fill in the form and save it with his or her first initial and last name as part of the file name; e.g., MJohnsonApplication.

We will be asking the nominees to send in three items with their completed application form:

- a current curriculum vitae or resume that includes their contact information, degrees, teaching and other work experience and any professional development training they have received and/or experience in conducting workshops;
- a letter of commitment to attend the Academy, if selected;
- a letter of recommendation and commitment from their principals stating that the teachers will be permitted to conduct professional development workshops for their peers.



<http://bioenergyed.org>

Bioenergy and Bioproducts Ed. Programs

STEM Educators, Are You Ready to Refuel?

Come Explore and Integrate Science Learning in Sustainable Bioenergy, Biotechnology, and Environmental Education at the Boyce Thompson Institute of Plant Research

The Boyce Thompson Institute (BTI) for Plant Research – a non-profit institute and Cornell affiliate, pioneering advances in the plant sciences since 1924 – is accepting teacher applications for participation in the USDA-supported Bioenergy and Bioproducts Education Program (BBEP) to be held July 20-25, 2014 on the beautiful campus of Cornell University in Ithaca, New York.

Twelve teachers will take part in an intensive, five-day workshop focused on integrating a ‘systems-thinking’ approach to 7-12th grade science exploring bioenergy and environmental topics. Teachers will learn STEM concepts and practices fundamental to sustainable biomass production, renewable energy technologies, and environmental resource management.

The workshop offers science seminars, laboratory activities, and curriculum resources with accompanying workbooks designed by scientists and educators and aligned with Next Generation Science Standards. Upon completion, teachers receive classroom support (laboratories supplies/kits/activities) and follow-up consultations with BBEP educators via social media or classroom visits. Participating teachers are invited to tour BTI with their students. Visit BTI’s Education and Outreach homepage and the BBEP website to learn more about this, and other, teacher opportunities. We look forward to having you on campus in July!

Who Should Apply:

Biology, Chemistry, Earth, Environmental Science, Agriculture, and Technology Teachers (grades 7-12). Informal science educators and pre-service teachers are eligible to apply.

To apply: Visit us at

<http://bioenergyed.org/apply>



<http://nsdl.org/>

NSDL: Serving Science, Technology, Engineering, and Mathematics Education

The National Science Digital Library provides high quality online educational resources for teaching and learning, with current emphasis on the sciences, technology, engineering, and mathematics (STEM) disciplines—both formal and informal, institutional and individual, in local, state, national, and international educational settings. NSDL does not hold content directly—instead, we provide structured descriptive information (metadata) about web-based educational resources held on other sites by their providers, who contribute this metadata to NSDL for organized search and open access to educational resources via NSDL.org and its services.

Most resources in the library adhere to principles of Open Educational Resource (OER) access, although some resources are restricted to provider site membership, or may have a cost associated with them (indicated in the full record of the resource).

NSDL also offers customized consultation and technical services for organizations seeking to efficiently and effectively serve their audiences with educational content. If you are interested in these possibilities, contact us to learn more.

eLearning Admin Academy

The rise of instructional technology in our schools has given teachers more opportunities for increased engagement and student-centered learning in their classrooms. However, unless schools and districts provide clarity in leadership and effective professional learning opportunities, they are creating high-access/low-use classrooms that can be frustrating for students and teachers, alike. During this Admin Academy we will explore:

- best practices for planning and evaluating professional learning experiences (Guskey, SAMR)
- tips and strategies for leading with clarity
- methods for setting clear goals and managing complex change
- bringing the right people to the table (aligning resources- not just money, but people)
- tools for improving workflow

Academy Locations and Dates:

- Danville Community School Corporation -- April 21st
- East Noble School Corporation -- April 17th
- Evansville-Vanderburgh School Corporation – May 6th
- Madison Consolidated Schools – April 15th
- Porter Township School Corporation – April 18th
- Yorktown Community Schools – April 24th
- Warsaw Community Schools – May 12th



The IDOE Office of eLearning and Five-Star Technology Solutions Announce the Third Round of the eLearning Admin Academies.

For more information go to:

<http://www.five-startech.com/k-12-education1/indiana-doe-partnership/elearning-admin-academy/>

What PRISM Can Do For You!

- Easily find the perfect teaching and learning resources from our library of over 4,000.
- Save a list of your favorite resources for quick retrieval.
- Create and share lesson plans that teach your subjects utilizing your favorite resources.
- Develop online classrooms with interactive assignments, lessons, quizzes and more!
- Store your classroom materials online so that they are available to you from any computer.
- Reach your students more effectively by using web media for the digital age.
- Earn PGP points by completing PRISM led online Moodle course – either Beginning Moodle or Intermediate Moodle courses are available to you at no cost several times throughout the year.
- Select from free learning resources that emphasize visualization, rich context, staged-problem solving, and electronically enabled collaboration / communication.
- Augment your own dynamic presence in the classroom with teaching tools that mirror the skills needed for success in higher education and the 21st Century workplace.

*Through our strong support from the **Lilly Endowment** and others, we are constantly growing and improving. Check our site regularly to see what new resources you can use in your classroom.*

www.rose-prism.org



PRISM is a free website that provides collections of online resources for Indiana educators in the fields of science, technology, engineering, and mathematics (STEM). The primary collection of digital teaching materials is indexed according to the Indiana Academic Standards for 6th, 7th, and 8th grade and secondary education courses.