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PRISM Proving Valuable Resource for K-12 Teachers, Students



Indiana fourth- and fifth-grade teachers visited with computer science and software engineering professor Delvin Defoe's summer learning group to observe how computer simulations are used in engineering design. The elementary teachers were attending a PRISM workshop on incorporating creativity and visual thinking into their teaching of science and math concepts.

Science, math and technology teachers in Indiana are hungry for new teaching resources and strategies, and Rose-Hulman's Portal Resource for Indiana Science and Mathematics (PRISM) is proving to be their go-to destination.

PRISM's website has had 54.1 million pageviews this year with 7.5 million page views in September, and nearly 12,000 teachers and 100,000 students are now registered users. They have access to an online library of more than 4,800 educational resources, including virtual labs, skill-building exercises and actual data from the science, technology, engineering and mathematics (STEM) workplace that can be used in setting up labs or projects, or completing assignments such as a report.

PRISM, with Lilly Endowment Inc. support, also provides Indiana teachers in kindergarten through 12th grade use of the Moodle Learning Management System to create their own secured classroom courses. There are also tools for teachers to easily integrate favorite resources into their daily lessons, along with an online library allowing teachers to share lesson plans with other school districts.

"New media will be a major agent for learning in the 21st Century," says program director Patricia Carlson. She notes that digital resources have already replaced textbooks in many Indiana school classrooms and 90 percent of Indiana school corporations provide digital devices or plan to make the technology available to every student by next year.

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PRISM Proving Valuable Resource for K-12 Teachers, Students

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“Our goal is to help teachers embrace digital learning tools as extensions of their own dynamic presence in the classroom,” she adds. “PRISM facilitates innovation in teaching and learning by offering digital tools that merge teachers, talent and technology to advance student accomplishments.”

A total of 40,674 people visited the PRISM website this past September alone (compared to 4,929 in September of 2006). Eighty-five percent of the visitors are from Indiana, with top regions being Terre Haute, Indianapolis, Bloomington, East Chicago, Bedford, Evansville, South Bend and Carmel.

Evansville North High School science teacher Brian Hartman and Indianapolis’ Sycamore School teacher Tim Kasper have used the PRISM website since 2006 to host class websites and post digital classroom materials for students to observe after school. Both use the Moodle system for online quizzes and tests.

“With much of standardized testing going digital, this kind of experience is valuable to the students and, in the end, to the teacher,” says Hartman. “Digital testing allows for a quick overview of which questions students are missing to provide me feedback on instruction and guide remediation. It is a very valuable tool in gauging classroom dynamics.” Kasper adds, “The site allows teachers to provide a neat and organized forum for all content, and helps any teacher wanting to convert to a paperless classroom.”

Jake Allen, principal of Paul Hadley Middle School in Mooresville and co-president of the Indiana Curriculum and Instruction Association, has encouraged science teachers and Project Lead The Way leaders at his school to adapt PRISM’s resources into their classroom activities.

“As an educational leader, I am constantly seeking learning resources to benefit my teachers and students while in the traditional school setting and throughout the extended learning day,” Allen says. “PRISM offers high quality, reputable resources and curriculum that provide student-centered content that is highly engaging. It is an excellent supplemental resource for the classroom curriculum, and it is an excellent resource for student-driven, independent discovery.” PRISM also offers teacher professional development opportunities ranging from one-day sessions to those lasting three weeks. Topics include: integrating advanced technology, such as SMART Boards, into the classroom, using PRISM’s resources to support multi-modal learning, blending engineering concepts into the traditional STEM curricula, adapting pedagogy for one-to-one computer settings, and developing digitally rich lessons for the one-computer classroom. Earlier this year PRISM received the Indiana Department of Education Promising Practices award for its math and science partnership grant program with the Vigo County School Corporation.

The PRISM team consists of Carlson, Educational Liaison Bob Jackson and Assistant Director and System Manager Ryan Smith.

<http://www.rose-hulman.edu/news/academics/2016/prism-proving-valuable-resource-for-k-12-teachers,-students.aspx>

3 Ways for Parents, Teachers to Help Teens Interested in Science Succeed

Activities outside of class can allow students to explore their passion for science.

By Alexandra Pannoni, Digital Producer Dec. 12, 2016



U.S. high schoolers aren't the best at science among their international peers, but many of the country's teens want to pursue a career in the field, [according to a new report](#).

Thirty-eight percent of 15-year-olds in the U.S. who took the Program for International Student Assessment, [a reading, science and math exam](#) given to students globally every three years, [expect to work](#) in a science-related career at 30.

[\[Check out the 2016 Best High Schools for STEM\]](#)

However, U.S. students only scored about average in science among their global peers and didn't improve since the exam was last given in 2012, the report says.

High school science teachers and parents can use the following three tips to help teens interested in science and struggling academically beef up their skills.

1. Give students an outlet to explore science outside of class: Sometimes, students aren't given the opportunity in science class to explore real data or to practice science in a hands-on or meaningful way, says Jessica Anderson, a science teacher at [Powell County High School](#) in [Montana](#). It's helpful for students to have opportunities outside of class to explore their passion, such as in a science club or by conducting research with a mentor, says Anderson, who is also the 2016 Montana Teacher of the Year. Parents and teachers should help students find these opportunities and make sure teens take advantage of them, she says. Students probably won't do these activities if parents and teachers just recommend them, Anderson says. "They'd be like, 'Oh, thanks. Maybe I'll do that.' But they need that extra push," she says. That's especially important since students might lose confidence once they see a low score on an exam, she says.

2. Help students work on their literacy skills: There are so many technical terms students will encounter in science, such as those related to cell reproduction, that science can become challenging for students, says Chris Ludwig, a science teacher at [La Junta High School](#) in [Colorado](#). Families can help students beef up their comprehension skills by reading short news articles together, not even necessarily about science, and talk about what happened in the story afterward, he says.

[\[Get tips from Bill Nye the Science Guy on keeping teens interested in STEM\]](#)

3. Expose students to all kinds of careers in science: Many students don't know about the various science-related careers available, says Anderson. "They may think, 'Oh, I have to be an astronomer or I have to be a marine biologist,'" says Doug Hodum, a biology teacher at [Mt. Blue High School](#) in Farmington, [Maine](#). But there are many other careers available in STEM – science, technology, engineering and math – that require different types of skills, Hodum says, including lab technicians and primary investigators. And parents and teachers should be careful when giving feedback. "It's really easy to instantly turn a kid off if you even suggest that, 'Well, science might not be for you,'" says Ludwig, the Colorado teacher. "You should never discourage a student from pursuing something they are interested in," says Hodum.

Read more online at: <http://www.usnews.com/high-schools/blogs/high-school-notes/articles/2016-12-12/3-ways-for-parents-teachers-to-help-teens-interested-in-science-succeed>

Indiana Department of Education Recognizes 200th Promising Practice in Honor of Indiana's Bicentennial

Samantha Hart, Press Secretary Indiana Department of Education Dec. 9th 2016

The Indiana Department of Education recognized the 200th Promising Practice in honor of Indiana's bicentennial today. The Promising Practices program identifies high-quality education practices and wrap-around services in schools and communities throughout Indiana. During today's Statehood Day celebration, the Department recognized 31 programs.

"Great schools are the backbone of strong communities," said Glenda Ritz, Indiana's Superintendent of Public Instruction. "Through the Promising Practices program, the Indiana Department of Education honors Indiana's bicentennial by highlighting high-quality educational programs and wrap-around services. That is why I am honored to recognize more than 200 Promising Practices today that are positively impacting our schools and our state."

The Promising Practices initiative was developed by Superintendent Ritz in 2016 in honor of Indiana's bicentennial year to recognize 200 programs focused on ensuring that all students have access to a quality education and wrap-around services. In addition to publicly recognizing selected schools, each promising practice is shared across the state as an example of best practices that have a positive impact on Hoosier students.

Over the past twelve months, the Department recognized more than 200 Promising Practices in Indiana schools. Today's programs were recognized in the areas of school safety, research-based practices, climate and culture, family and community engagement, quality wrap-around services, and student-centered programming.

A list of the Promising Practices recognized today can be found at: [Indiana Promising Practice Schools](#)

Professional Development for Teachers

Science Ambassador Fellowship Centers for Disease Control and Prevention Saving Lives, Protecting People

Science Ambassador Class of 2017

The CDC Science Ambassador Fellowship is the only program of its kind offered by CDC for teachers and educational leaders interested in bringing public health sciences into current middle- and high- school classrooms. In 2017, CDC's Division of Scientific Education and Professional Development (DSEPD), Career Paths to Public Health, will launch the inaugural Science Ambassador Fellowship, previously known as the Science Ambassador Workshop. This competitive fellowship includes a 5-day summer course at CDC headquarters in Atlanta, Georgia, and a 1-year distance-based professional development opportunity.

Prior to the summer course, fellows:

- complete an online Introduction to [Public Health short course](#).

During the summer course, fellows:

- learn from and interact with CDC scientists who will provide public health content and guidance on effective teaching strategies,
- participate in panel discussions by CDC public health scientists on current public health topics,
- listen to seminars with [Epidemic Intelligence Service](#) officers,
- develop challenging and innovative public health STEM lesson plans that meet [Next Generation Science Standards*](#) in teams,
- tour CDC's state-of-the-art facilities, including the [David J. Sencer CDC Museum](#), the [Emergency Operations Center](#) and CDC laboratories,
- expand their professional network, and
- earn 4.0 Continuing Education Units (CEUs).

After the summer course, fellows:

- collaborate with CDC remotely for one year,
- work with CDC scientists to finalize teaching materials,
- pilot public health lesson plans in the classroom,
- present public health lesson plans at local teacher conferences or meetings, and
- consult on the development of public health-based resource materials for middle- and high- school teachers nationwide.

Duke Energy Academy at Purdue June 18-24, 2017 Inspiring Future Leaders in Energy

The Duke Energy Academy at Purdue University is an immersive program for high-achieving high school juniors and seniors, and secondary science teachers. During the week-long course on STEM-related energy topics, participants will be provided with resources and incentives to inspire both students and teachers in sustainable energy solutions. The program is free to all participants and teachers will receive a \$400 stipend on successful program completion.

STUDENTS:

Students (as of Fall 2017) going into their junior or senior years in high school interested in science and engineering and who would like to learn more about energy issues. ([Apply here](#))

TEACHERS:

Secondary science teachers who are interested in energy issues. In addition to free campus room and board, each participant will receive a \$400 stipend on successful program completion. ([Apply here](#))

Contact Us:

Duke Energy Academy at Purdue
Mann Hall, Rm 105
203 South Martin Jischke Dr.
Purdue University
West Lafayette, IN 47907-1971
energyacademy@purdue.edu
Phone: (765)-494-1610

Application Closes January 16, 2017

What PRISM Can Do For You!

- Easily find the perfect teaching and learning resources from our library of over 4,000.
- Store your classroom materials online so that they are available to you from any computer.
- Select from free learning resources that emphasize visualization, rich context, staged-problem solving, and electronically enabled collaboration / communication.
- Save a list of your favorite resources for quick retrieval.
- Reach your students more effectively by using web media for the digital age.
- 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.
- Create and share lesson plans that teach your subjects utilizing your favorite resources.
- 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.

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.