prism

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Newsletter

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PRISM Spotlight: ICPBL

In 2013, PRISM created a partnership with the Indiana Collaborative for Project Based Learning. The ICPBL or Collaborative is comprised of six organizations which have come together for the purpose of supporting, sponsoring, and funding specific PBL project work across the state of Indiana. PRISM has agreed to help the ICPBL with their website, certification process and project library. The ICPBL library has been developed from the ground up by PRISM to satisfy all the needs of the ICPBL and has been in use since June.

ICPBL Indiana Collaborative for Project Based Learning

On June 24th, PRISM's staff programmer Matthew Davidson attended the 2013 PBL Institute. The PBL Institute is a four day seminar that instructs teachers on how to design, manage, and assess standards focused projects in their classrooms. Matthew spoke at the seminar about the new digital library tool that had been built to store and share their lessons that will be created throughout the state by the PBL Institute and other like-minded groups that are a part of the Indiana Collaborative initiative (ICPBL).

PRISM has since been actively helping the ICPBL to create their own unique web presence along with the infrastructure needed to register users from across the state for events, and to apply online for PBL certification. The ICPBL website can be reached at http://www.rose-prism.org/moodle/prism/icpbl.

PRISM Presentation for Your School

Did you know that PRISM provides free, on-site professional development events for Indiana schools? Topics and services are given below. Or, we can tailor a training session specifically for your needs.
Contact Bob Jackson, PRISM Educational Liaison, jackson2@rose-hulman.edu to schedule a convenient time to share PRISM with your staff.

- Easily find teaching and learning resources from our library of over 3,000.
- Create and share lesson plans using your favorite resources.
- Develop interactive online classrooms.
- Store classroom materials online so that they are available from any computer.
- Reach your students more effectively by using web media.
- 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 school year.

New Affiliate for Project Lead The Way

http://www.insideindianabusiness.com/newsitem.asp?ID=62837

Rose-Hulman Institute of Technology is the newest affiliate partner for Project Lead The Way (PLTW), an Indianapolis-based national nonprofit organization that provides science, technology, engineering, and math (STEM) education programs to K-12 schools. Rose-Hulman joins 50 other colleges, universities, and research institutions providing support for PLTW and its network of over 5,000 schools in the United States. Rose-Hulman becomes the third PLTW affiliate partner in Indiana, joining IUPUI and Purdue University.

As an affiliate partner, Rose-Hulman will work with PLTW to support and grow K-12 STEM programs in Indiana. Rose-Hulman will host PLTW's annual professional development training programs for teachers, host annual conferences for school administrators and counselors, as well as provide ongoing support to PLTW schools. Dr. Christine Buckley, a 19-year Rose-Hulman faculty member and current associate professor of biology and biomedical engineering, will serve as Rose-Hulman's PLTW Affiliate Director.

"Rose-Hulman Institute of Technology is one of the nation's premier engineering, science, and math universities," said PLTW President and CEO Dr. Vince Bertram. "STEM education has never been more crucial for our country, and we are thrilled to have such a prestigious, highly regarded partner as Rose-Hulman to further our important work."
As an Indiana—and national— higher education leader in engineering and technology, Rose-Hulman's history is rich in STEM education programs and outreach.

Biggest Threat to US Growth is in the Classroom

http://www.marketwatch.com/story/the-biggest-threat-to-us-growth-is-in-the-classroom-2014-01-16

The United States is facing its greatest threat — the lack of a talented workforce pipeline ready to compete in today's global economy.
Nowhere is this more evident and alarming than in the fields of science, technology, engineering, and math (STEM). We are already seeing the effect of the STEM skills gap on American business and industry. In a 2013 ManpowerGroup survey of nearly 40,000 international companies, employers around the world said they are having difficulty finding people with the right skills. Two of the top three most challenging positions to fill are skilled trades workers and engineers.

The President's Council of Advisors on Science and Technology, in a February 2012 report, highlighted the problem, stating that the "Economic projections point to a need for approximately one million more STEM professionals than the U.S. will produce at the current rate over the next decade if the country is to retain its historical preeminence in science and technology. To meet this goal, the United States will need to increase the number of students who receive undergraduate STEM degrees by about 34% annually over current rates." Yet we are not on a course to achieve these results — not at the elementary, secondary, or post-secondary levels of education.

Recent results from the National Assessment for Educational Progress show that more than half of American fourth and eighth graders are not performing at proficient levels in math; only 42% of fourth graders and 35% of eighth graders are seen as proficient. Clearly, we are under-educating our youth. Students are suffering from a severe expectations and aspirations gap as we fail to excite and inspire them around what matters most — building critical-thinking, problem-solving, and collaboration skills through activity-, project-, and problem-based learning.

www.vigoschools.org

PRISM in Action

During the month of January 2014, Bob Jackson, Educational Liaison, with PRISM modeled close-reading activities in all of the Middle Schools in the Vigo County Schools. The schools were: Honey Creek Middle School, Sarah Scott Middle School, Otter Creek Middle School, Woodrow Wilson Middle School and the McLean Alternative School.

Close-reading is the careful, sustained interpretation of a brief passage of text. Such a reading pays close attention to individual words, syntax, and vocabulary.

Bob developed lessons for each grade level (6th, 7th and 8th grade). Each of the lessons are based on Indiana Science Academic Standards in the Earth and Space Science content areas. One complete lesson was developed for each grade level and modeled in the classroom. Each grade level teacher was provided the following materials for each lesson:

1. Lesson Plan with Standards, Objectives and Procedures to be used.
2. A Base Reading
3. URLs for Video clips to enhance the lesson.
4. Hard copies and digital copies of Guided Notes – Outlines for students to complete during the activity.
5. Guidelines for a Writing Activity to following Close-Reading Activity.

Materials for these lessons are on a Moodle course platform on the PRISM website. Teachers were given instruction on how to access the materials on the PRISM website.

The main intent of this project was to provide teachers with a Close-Reading lesson to be incorporated into their curriculum. The PRISM team wanted to model the use of Moodle in the classroom with these lessons. Bob Jackson presented the lessons in the Vigo County Schools classrooms using the Moodle platform.

http://tinyurl.com/lsksazf

SOCRATICA Periodic Table App

With the Socratica Periodic Table App, a student can learn all about the elements. A student can access many chemical and physical properties for each element. Students can receive help on proper pronunciation of element names with audio clips. Students find elements by browsing the table, searching, or using the index. Students can even test themselves using Socratica quizzes. This periodic table app has five menu items:

"More Apps" is a promo for other apps, a mixed bag of several types of apps.

"Learn" pops up a random element and displays its properties, with a link to the Wikipedia on the element.

"Table" displays the table itself, using the conventional colored groups of elements. Clicking on any color group expands that group for better readability.

"Lookup" has a text box to type in the name of an element. The app returns with the properties of the element: basic, atomic, thermodynamic, material, electrodynamic, reactivity, and nuclear, plus a link to the element's Wikipedia page.

"Quiz" offers four types of quizzes for self-learning.

Visible Body

http://www.visiblebody.com/atlas_overview

What is it?
The application is a revolutionary 3D visualization and learning tool used to explore the systems of the human body. It contains more than 3,800 anatomical structures, including all major organs and systems of the male and female bodies. This application is used by healthcare professionals, patients, students, and all others interested in detailed visualization of human anatomy.

What does it include?
Human Anatomy Atlas includes:

- 3D Atlas section that is fully interactive and includes over 3,800 anatomical structures
- Hundreds of thumbnails that launch preset views of regions and body systems
- The ability to create, save and share custom 3D views
- Pronunciations and detailed definitions with Latin terms
- Hundreds of quizzes
- New animations section includes 11 free animations on microanatomy and physiological function. Over 50 animations are included as in in-app purchase.
- Dynamic search capability, drawing, notecard and screenshot capture
- This app is for iPad and iPhone

Math Tutor Lite

https://itunes.apple.com/us/app/math-tutor-lite/id325267195?mt=8

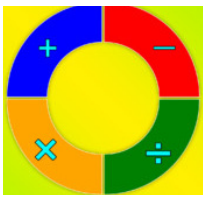
Practice basic math skills with this great Math app. Math Tutor Lite is the free version of Math Tutor, but it has more than enough content to make it a worthwhile download. So, whether you want your students to brush up on addition, multiplication, subtraction or division, you will find that all skills are covered here. There are six levels of difficulty for each skill, and students are given instant feedback on how well they have done. The games can be played with a timer for an extra challenge, or without.

iFormulas

https://itunes.apple.com/us/app/iformulas/id346888659?mt=8

This useful app contains over 330 formulas, definitions, laws and properties and would be a great quick reference guide for secondary level Math classes. Algebra, Geometry, Calculus and Trigonometry are all covered by iFormulas. It won't tell you the answers, but it will provide you with the formulas you need to calculate the answer. It is like having a Math book in your pocket, so easily earns a spot as one of the top 10 iPod Touch apps for Math classrooms.

Basic Math



https://itunes.apple.com/us/app/basic-math/id291808633?mt=8

This is another skills drill app that will help your students practice their basic math facts. Designed largely for under 12s, the included exercises have varying levels of difficulty and cover addition, subtraction, multiplication and division. Again, a timer can be added if students want to play against the clock, and you can even set a delay between questions depending on whether they were answered correctly or incorrectly.

HASTI: The Next Generation

The 43rd Annual HASTI Conference, HASTI: The Next Generation, will be held February 5-7, 2014 at the Indiana Convention Center in Indianapolis, Indiana.

For information on the general session speakers, please see below. For more detailed information go to: http://www.hasti.org/HASTIconference.html

PRISM needs RESOURCES

The PRISM team encourages you to submit high quality resources to be added to PRISM. If you have some particularly good resources that you have used effectively in the classroom, we would like to suggest that you add them to PRISM for others to use in the classroom. These can be in the form of digital resources, virtual labs, conventional labs that can be scanned to a digital format, video clips, assignments, activities and games.

You can submit them through the Add Materials link or send them via email as an attachment to: jackson2@rose-hulman.edu. We would like to build more resources in the PRISM database in the areas of: Chemistry, Physics, AP Biology, Anatomy and Physiology and Calculus and Advanced Math.

We really want the resources to be linked to the appropriate content areas and to the appropriate state standards. We would be glad to enter the resources into PRISM for you if you can submit them.

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