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Introducing: Bob Jackson



Bob Jackson is the new PRISM Educational Liaison at Rose-Hulman. Bob has had 27 years of teaching experience. He taught 25 years at West Vigo High School in Vigo County, Indiana. He taught 1st Year Chemistry, 2nd Year Chemistry, Integrated Chemistry/Physics and a five-week summer field research course with a culminating 12 day experience in the Colorado Rocky Mountains. Bob has also served as the Assistant Athletic Director at West Vigo High School for the last 2 school years. He taught for one year in his early career at

Terre Haute North Vigo High School and for one year at Clewiston High School in Clewiston, Florida. Bob is a certified teacher in chemistry and biology. He has a Master's Degree in Curriculum & Instruction and an additional 36 hours in Educational Administration. Bob's major role is to serve as an advocate for PRISM and STEM education. He will be working with teachers throughout Indiana introducing them to PRISM and helping to facilitate workshops and Moodle course training.

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.

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.

I 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.



realworldmath.org

<http://www.realworldmath.org>

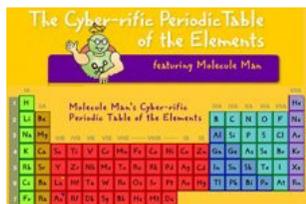
Real World Math

Real World Math is a collection of free math activities for Google Earth designed for students and educators. Mathematics is much more than a set of problems in a textbook. In the virtual world of Google Earth, concepts and challenges can be presented in a meaningful way that portray the usefulness of the ideas.

Real World Math is for students. Students will find downloads for over 30 activities, videos, and instructional tutorials for Google Earth & SketchUp. The goal is to take the math you learned in class and develop it further with problem solving activities. You'll find some familiar concepts and learn some ideas. All of the lessons are technology-based and can be completed in the classroom or at home. This is where

you'll find the answer to, "When are we ever gonna need this?!"

Real World Math is for teachers. Teachers have access to lesson write ups and additional material to integrate these activities effectively. The core of the site is mathematics for grades 4 and up, but many lessons lend themselves to interdisciplinary activities. This is a modern approach to mathematics that is student-centered and task-oriented; it embraces active learning, constructivism, and project-based activities, while remaining true to the standards. Higher level thinking skills, such as analysis, synthesis, and creativity are encouraged as well as technology skills and social learning.



www.bayerus.com/msms/msms_science_fun/PeriodicTable/PeriodicTableIntro.aspx

Cyber-rific Periodic Table

Molecule Man introduces you to the Cyber-rific Periodic Table of the Elements, which features a very colorful and intuitive interface. As you interact with the table, you see brief descriptions of the elements. Rolling over an element

displays information about its atomic number, weight, room temperature, and common uses. Clicking on the element provides information about the element's history and materials in which it is commonly found.



<https://edshelf.com/tool/desmos>

Desmos

At Desmos, we've set out to re-imagine the graphing calculator from the ground up, building on the best technologies available. We're driven by a few core beliefs:

every student deserves access to the best tools for learning

it's a travesty that educational tools have

fallen so far behind as technology in general has catapulted forward

learning is a process of exploration and discovery, not a series of answers

everyone can learn and enjoy math, given the right environment

math is beautiful and surprisingly fun

FluidMath™



<https://edshelf.com/tool/fluidmath>

FluidMath

webFluidGraphing — recognizes and graphs handwritten expressions, interactive zoom/pan, sliders, trace, feature points.

webFluidMath — bring math visualization and computation to the same page you handwrite math equations and annotations on, and organize the content the way you like, just like on paper or a classroom whiteboard.



<https://edshelf.com/tool/sketchpad-explorer>

Sketchpad Explorer

Drag, manipulate and animate visual mathematics to develop and generalize your understanding of fundamental concepts across elementary math, geometry, algebra, trigonometry, calculus, and beyond. Based on the award-winning software The Geometer's Sketchpad®, the Sketchpad Explorer app allows you to interact with, and investigate, any document created in Sketchpad. With a simple, powerful multitouch interface, Sketchpad Explorer puts mathematical comprehension at your fingertips.

Acclaimed as “the Best Educational Software” for mathematics, The Geometer's Sketchpad is the most

widely used school mathematics software in the world. Numerous Sketchpad documents offer mathematical activities, investigations, and interactive visualizations covering a comprehensive range of topics, for learners from kindergarten through university. Far from offering only repetitive and narrow drill, Sketchpad environments encourage deep conceptual understanding and broad mathematical meaning-making.

Sketchpad Explorer is developed by KCP Technologies and published by Key Curriculum Press. All registered trademarks are the properties of their respective owners



<https://edshelf.com/tool/geometry-pad>

Geometry Pad

Geometry Pad is a dynamic geometry application for iPad.

With the Geometry Pad you can create fundamental geometric shapes, explore and change their properties and calculate metrics. The shapes are displayed on a scrollable and zoomable workbook with a rectangular coordinate system. The following tools are built into the application:

Move and scale. Scroll the workbook by your finger. Pinch and zoom the content of your workbook. Move and modify shapes.

Built-in calculator: basic arithmetic functions, square root, sin, cos, tan. Manage multiple workbooks at the same time using Save and Load features. In addition, you can share documents through e-mail or Dropbox.

Some of the tasks you can solve with Geometry Pad:

Create geometric shapes and measure all its possible metrics like length, angle, area, perimeter, intersections, distance between points, angles between lines.

Move/resize geometric shapes and watch how its metrics are changing in real time. Demonstrate circle theorems by creating and changing inscribed and center angles. Demonstrate theorems about incircles and excircles locations.

Create and annotate complex geometric figures. Share them through export to image and e-mail features.

Please let us know what you think of the application. Suggestions and feature requests are welcomed! Just hit the Feedback item under the documents menu inside the application and write us an e-mail.



http://www.huffingtonpost.com/julie-kantor/teachers-its-time-to-make-it-real_b_4239780.html

Teachers and School Leaders Make It Real

By: Julie Kantor, Huffington Post – Girls in STEM

[EXERPT]

It's so basic. When you make it real, applicable to real life, you touch the hearts and minds of America's youth and young workforce. Make it hands on, and show young people the correlation to real life and they will learn way more and advance academically.

Want more girls engaged in STEM,... position your course beyond math and science, but a place that they can do an experiment, build an app, build a robot, create a cure or a movement to change the world. Project based and applied learning.

Yesterday I met with the dynamic past STEM Principal from McKinley Technical High School, David Pinder and he shared an amazing story. One of his students was almost "removed" from school twice; he came from the toughest Ward in DC with the highest poverty and well over 20 percent unemployment. He came to the school below basic math and science. This young man, Golden R., had the golden touch. He was inspired by

hands on classes through Project Lead the Way for engineering, Robotics, and a CSI curriculum developed by Carnegie for Biotech.

"He was the first kid in the school to get a five in both AP Physics and AP Chemistry test. He was doing math and science without even realizing it," said his Principal David Pinder who is now the head of the DC Region for New Leaders for New Schools training a new generation of Principals.

"He was doing math without even realizing it," and the results were off the charts. His mind, expanded forever.

There is a saying that a good teacher can effect eternity. A teacher can, does, and so can industry stepping in helping out and people taking the time for skills-based mentoring and internships. We, as a country, can bring back manufacturing and innovation, increase girls in STEM, teach kids to be economically self-sufficient and ready for work after high school or college. We just need to make it real to ignite the minds and learning of our kids.



HASTI
Hoosier Association
of Science Teachers, Inc.

<http://www.hasti.org/HASTIconference.html>

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.

The HASTI Conference provides you with an opportunity to present your ideas to Indiana science teachers, administrators, and anyone with an interest in improving science education in Indiana.

Submission Deadline: October 8, 2013

To submit a program proposal, please click on the blue "Register Now" button to the right-hand side of this screen. You may also download a hard copy form and submit via email or fax.

To submit multiple proposals - You may submit multiple proposals under the same order. Please select the "Add Another Person" option on the bottom of the Itinerary screen. Please note, you will only need to enter your email address once.

Upcoming Distance Education Courses

We are offering two FREE online training courses in October and November. We offer Professional Growth Plan (PGP) points for each course.

Basic Moodle for Teachers (10 PGP Points) – A basic introduction to Moodle 2.6. You will learn how to build a classroom course and populate it with files, assignments and quizzes.

Dates: November 26 – December 23

Intermediate Moodle for Teachers (10 PGP Points) – A continuation from the Basic Moodle for Teachers course. Choose this course if you already have Moodle experience and would like to learn how to use some of the more advanced features.

Dates: November 27 – December 23

Let us know if you have any questions or would like more details about the courses. All of the courses are completed online at your-own-pace during your own free time.

If you would like to register for a course, please visit the PRISM website (www.rose-prism.org), log in, and click the 'Event Registration' link. Use the drop-down menu to select the appropriate course and click the 'Registration Form' button. You will see a complete description of the course. To sign up, scroll down and enter your information. You should receive a confirmation email. If you do not receive a confirmation email, please contact us.

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.