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Newsletter

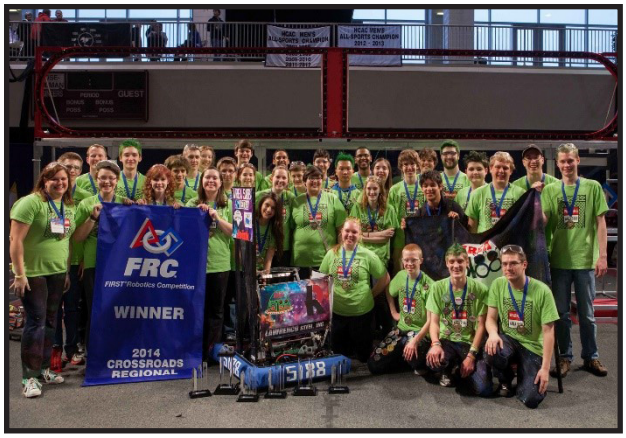
Special Interest Articles

Individual Highlights

AREA 5188 Classified Robotics

The Vigo County AREA 5188 Classified Robotics is a FIRST Robotics Team from Terre Haute, Indiana. Their mission is to:

1. Foster the growth of tomorrow's inventors and engineers by providing them with vital tools and resources for success.
2. Increase youth involvement in STEM and sustain interest through the years.
3. Build community pride and support for STEM education and programs by demonstrating the positive impact FIRST® programs have on students' lives.
4. Maintain a high level of accomplishment in FIRST® Robotics Competitions while instilling valuable STEM skills in students.
5. Activate mentor relationships and teamwork skills based on common interests.



It is believed that AREA 5188 Classified Robotics works out of a top-secret facility at Rose-Hulman Institute of Technology. Its purpose is to generate interest in science, technology, engineering and mathematics (STEM) by engaging the students in FIRST® robotic competitions.

Students are challenged in multi-disciplinary programs that combine entrepreneurship, engineering, computer programming, problem solving, research, presentations and teamwork. The team is giving back to the community through teaching, training and mentoring other youth in the surrounding Terre Haute area.

AREA 5188 Classified Robotics Needs Your Help

The Vigo County AREA 5188 Classified Robotics Team needs your support! They just won the Crossroads Regional Competition at Rose-Hulman Institute of Technology beating out 45 teams from 9 states. With the win, they now have an opportunity to compete at the FIRST World's Competition in St. Louis, Missouri on April 23rd – 26th, 2014. They have a goal of raising enough money to enter the competition (registration fees), lodging and meals of the team members.

http://housestudentapps.challengepost.com

House App Challenge

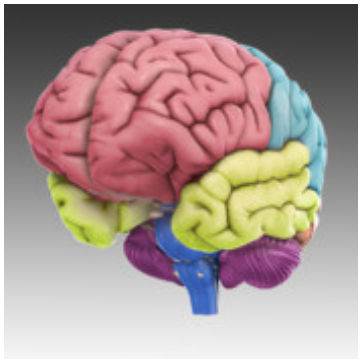
This marks the first annual Congressional Science, Technology, Engineering and Math (STEM) Academic Competition, the "House App Contest." This new competition is designed to engage student's creativity and encourage their participation in STEM education fields.

Established by Members of the U.S. House of Representatives in 2013, this competition is a nationwide event that allows high school students from across the country to compete by creating and exhibiting their software application, or "app," for mobile, tablet, or computer devices on a platform of their choice. Throughout the completion period, participating students will be provided opportunities to engage with various STEM educational partners located within the community to mentor and assist them with their app development.

The "House App Challenge" is open to all high school students in participating districts. Students entering the competition must submit their app's source code online during the Competition Submission Period between 12 PM Eastern Standard Time on FEBRUARY 1ST, 2014, and 11:59 PM Eastern Daylight Time on APRIL 30TH, 2014, as well as provide a YouTube or VIMEO video demo explaining their app and what they learned through this competition process.

Can I Participate?
1. Members of Congress must opt-in for their district to participate in this competition. If a Member does not opt-in, constituents in their district will be ineligible to participate. Find out if I am eligible.
2. The Competition is open only to high school students who reside in a participating district or who are eligible to attend public high school in that district. Individuals submitting on behalf of teams must meet the eligibility requirements for individual Contestants.

To Register
To enter, the student must register for the House Student App Challenge under their participating Member of Congress' profile and register on www.challengepost.com during the Competition Submission Period. All entries must be an original in concept, design and execution.



https://itunes.apple.com/us/app/3d-brain/id331399332

3D Brain

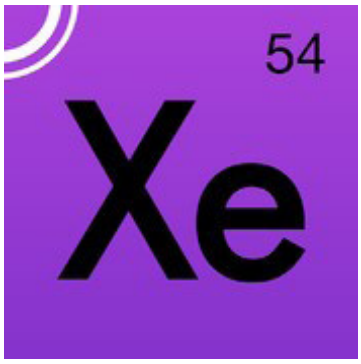
Use your touch screen to rotate and zoom around 29 interactive structures. Discover how each brain region functions, what happens when it is injured, and how it is involved in mental illness. Each detailed structure comes with information on functions, disorders, brain damage, case studies, and links to modern research.

Created by Vivid Apps and AXS Biomedical Animation Studio for the Cold Spring Harbor Laboratory DNA Learning Center. 3D Brain was produced for the Genes to Cognition (G2C) Online website funded by the Dana Foundation and Hewlett Foundation.

New in version 1.2:

• Dozens of updated scientific references across all structures

• Option to upgrade to HQ app with higher resolution images & improved interface



https://itunes.apple.com/us/app/elements-visual-exploration/id364147847

The Elements: A Visual Exploration

Of all the periodic table apps, there is only one which Stephen Fry described as "Alone worth the price of an iPad!". The Elements: A Visual Exploration is not just a reference app, it is a rich and engaging love story of the periodic table, told in words and pictures, and allowing you to experience the beauty and fascination of the building blocks of our universe in a way you've never seen before.

The Elements is based on the internationally best-selling hard cover edition of The Elements by Theodore Gray, Popular Science Magazine's Gray Matter columnist. But it goes way beyond what is possible on paper.

You start off at a living periodic table where every element is shown with a smoothly rotating sample. To read about tin, tap the tin soldier. To read about gold, tap the gold nugget. Immediately you see the sample filling nearly the entire screen, photographed to razor sharpness and rotating around a complete circle in front of your eyes. Beside that is a column of facts and figures, each of which can be tapped to bring up rich detail and current information through the embedded Wolfram|Alpha computational knowledge engine.

Go to each element's second page and you find a fascinating story about the element, surrounded by carefully photographed objects representing it. Every one of these objects, well over 500 in total, is a freely rotatable, live object that you can examine from all sides and pinch zoom to see in unprecedented detail.

Touch the element name at the top of the page and you can see that element's name in over a dozen different languages. Choose one and you'll find that the entire book, stories, captions and all, switches to that language: The Elements includes both the full English original text and over a dozen full translations.

Pinch-zoom or tap any object to bring it up full screen, where you can split into a pair of stereo 3D images. Using inexpensive 3D glasses you can see all 500 objects pop off the screen in 3D, and you can spin the objects, in 3D, with the touch of a finger. You can't get much more virtually real than that.

If you had a bad experience with chemistry class in school, this book is the antidote. If you or someone you know is afraid chemistry will be their most boring subject, this book will show them that there's a lot more to the periodic table than a bunch of numbers and letters.

KHAN ACADEMY

https://www.khanacademy.org/science/organic-chemistry/stereochemistry-topic/chirality-r-s-system/v/introduction-to-chirality

Chirality and the R,S system

Khan Academy is an organization on a mission. We're a not-for-profit with the goal of changing education for the better by providing a free world-class education for anyone anywhere.

Are you right handed or sinister-handed? Have you ever thought that you might not be as attractive as you look in the mirror? Welcome to the world of chirality. In this tutorial, Sal explores molecules that have the same composition and bonding, but are fundamentally different because they are mirror images of each other (kind of like Tomax and Xamot--the Crimson Guard Commanders from GI Joe).

One Amazing Example of How to Train Teachers on Technology

http://www.eschoolnews.com/2014/02/12/teachers-technology-tools-501/

By Meris Stansbury

One school district changed the standard in professional development; and it did so with a 'Technology Academy.'

Our webinars, professional development, Educator Resource Centers, and best practices feature helpful tips for educators. The following story is one specific example of how to train teachers with the latest ed-tech tools.

Imagine you need to learn how to fly a jet. You're given a link that describes how and an online video tutorial…nervous? Now imagine you're being taught by a fighter pilot in a small class, and that class is with your peers. The course runs for weeks and includes experience from other teachers who now fly jets and were once like you. Little less nervous? Welcome to one district's Technology Academy for teacher training.

Though it's not a likely chance that any teachers are also pilots at Garnet Valley School District in Pa., for many teachers in schools across the country, the thought of knowing how to effectively use technology in classrooms is still an intimidating concept.

According to Paul Sanfrancesco, director of technology for the district, many teachers see technology as something that's being pushed onto them. But once teachers learn the true value of education technology, the mindset can quickly change.

"The more you link the technology to the curriculum, the easier teachers find it—the less scary it will become—because it's less of a foreign object and more a tool to help them instruct," Sanfrancesco explained.

The problem for Garnet Valley was how to train teachers effectively in education technology without additional funds. Another concern was what to train teachers to use, since technology is constantly changing.

Turning Data into Action

Armed with three important tools to present to the school board—understandable data, building needs, and a realistic technology plan—Sanfrancesco received buy-in during a planned retreat from administration and the school board on a vision that become known as the Technology Academy.

2014 HI-TEC Conference

http://www.highimpact-tec.org/

HI-TEC is a national conference on advanced technological education where secondary and postsecondary educators, counselors, industry professionals, trade organizations, and technicians can update their knowledge and skills. Charged with Educating America's Technical Workforce, the event focuses on the preparation needed by the existing and future workforce for companies in the high-tech sectors that drive our nation's economy.

Attendees have the option to choose from approximately 15 preconference workshops and industry site tours during the first 2 days, followed by the 2-day main conference featuring keynote speakers and 60 breakout sessions. There will also be an awards luncheon and Technology Showcase with an exhibitor reception, door prizes, and more! Register today!

Indiana Girls Collaborative Project

STATEWIDE CONFERENCE coming March 19 in Indianapolis - don't miss it!
STEM-ulating Collaboration: Sustaining Equity and Resources for Indiana

The Indiana Girls Collaborative Project brings together organizations throughout Indiana that are committed to informing and motivating girls to pursue careers in science, technology, engineering, and mathematics (STEM).

Too often programs that serve girls in STEM are limited in service and impact due to size, location, funding, expertise, and equipment. In other cases, projects compete with each other, duplicating services and seeking the same resources. The Indiana Girls Collaborative Project provides the opportunity for programs to increase their ability to maintain interest and participation of girls in STEM within Indiana through collaboration.

The Indiana Girls Collaborative Project is based upon a model developed by the National Girls Collaborative Project, and replicated through a grant from the National Science Foundation. Project activities are designed to facilitate connections between organizations to maximize access to shared resources. Collaboration, as an interactive process, enables professionals across projects and communities to generate and carry out creative solutions and strategies that maximize benefit beyond what one project or community could accomplish. The model is structured to bring organizations together to leverage resources, share information and exemplary practices, and to plan strategically to expand STEM-related opportunities for girls.

Register now at: http://www.ngcproject.org/collaborative/indiana-girls-collaborative-project

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.