

A Newsletter from the Houston Urban Network for Science, Technology, Engineering and Mathematics ([HUNSTEM](#))

Best Links:

- [Houston A+](#)
- [CASE Cooperative for After School Enrichment](#)
- [Everyone Counts!](#)
- [TryEngineering](#)
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Houston A+ Teacher Externship Program

Houston A+ Challenge joins forces with the Greater Houston Partnership for the Annual Externship Program, an initiative aimed at improving connections between the classroom and the workplace.

This popular program has grown rapidly since its pilot year in 2003, when it launched with six teachers from Reagan High School. One hundred teachers and 40 businesses from throughout the Houston metro area participated in the

weeklong program in 2007, with Shell Oil Company as a generous sponsor.

Similar to a job shadowing or immersion program, externships place classroom teachers with business professionals in their field of study.

The experience gives teachers insight into the business world, provides them with new ideas and tools for classroom lessons, and reenergizes them for the school year ahead. Year after year, teachers tell us

that lessons planned through this externship help them to add relevance to the classroom and to connect with students in new and exciting ways.

To learn more about the program or to download an application go to: <http://www.houstonaplus.org/teacherextern.htm>

Go here to download a brochure: http://www.houstonaplus.org/teacher_externship_brochure.pdf

Houston: Energy City of the Future

The Houston: Energy City of the Future Competition provides Harris County middle and high school students with the opportunity to participate in an energy-focused after-school program. As participants in this competition, students work in four-person teams to design innovative yet feasible plans for Houston's energy use in the year 2050.

Until 2006, the Houston: Energy City of the Future Competition was exclusively for high school students. In 2007, in order to allow more students to participate in the competition, the Harris County Department of Education's Cooperative for

After School Enrichment (CASE) elected to invite eighth graders as well as high school students to join the program. This will continue in 2008.

Houston's teenage engineers and architects of the future will begin their research of the offshore oil industry through a fact-finding trip to the *Ocean Star* Museum in Galveston in late January. The *Houston: Energy City of the Future* competition will culminate in April when students gather to showcase their scale models of Houston in the year 2050 and to make PowerPoint presentations about their future cities.

"Picture a boardroom filled with enthusiastic, energy-savvy young executives in the year 2050 and you have an idea of what our CASE competition will look like," said Shannon Bishop, director of CASE. "These kids are serious about their futures; they are also competitive about winning cash awards for their energy-efficient cities."

To learn more contact Carol Vaughn, Communications Coordinator Harris County Department of Education:

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EnergyVenture Camp



Now through March
2, 2008

At the Children's
Museum of Houston



It's not too early to start planning for the Summer!

Check out the [HUNSTEM Camp Page](#) for a list of programs. We'll update this page as we get new information or hear about new camps. One exciting new camp starting this summer is the:

EnergyVenture Camp

EnergyVenture Camp is an intensive 40-hour energy career orientation summer camp for 12-14 year olds with an annual

reunion/reconnection program each year until college and connection to job market. EnergyVenture Camp will focus on jobs and careers, environment, safety, math and science. 2008 Camps will welcome 14 yr olds. 12 yr olds will be able to enter the program in 2009. Camps will be held across the Gulf Coast including Lee College, College of the Mainland, Brazosport and San Jacinto College District. Lee College will host one camp in summer 2008. San

Jacinto College District will host 4 camps. Camps will be held between June 16 and 23rd and July 7 and 14th. The cost will be \$300 per student. This includes field trips, lunches, supplies, refreshments, backpacks and sweatshirts!

For more information contact Susan Muha, Executive Vice President, San Jacinto College District at:

Susan.Muha@sjcd.edu

or by phone at : 281-991-2684.

Everyone Counts!

From China to Timbuktu, across landscapes and barriers, math is the universal language that transcends all cultures. And now, children will be able to join in the conversation through a **new, hands-on exhibit** at the **Children's Museum of Houston**.

Now through March 2, 2008

From floor to ceiling, filled to the brim with math games and activities, **Everyone**

Counts! is a collection of bilingual games, brain teasers and activities from around the world which shows how everyone counts in many ways!

Everyone Counts! provides an engaging environment for kids to explore math. It captures the best math games and activities—eastern and western, new and ancient—to show how even though exercises may differ from culture to culture, concepts remain the same in

any language.

Kids will unravel the mystery behind the *Nim*, a challenging puzzle from China. Or they'll decipher the *Kalah*, an ancient Middle Eastern game of strategy. They'll have a blast with tantalizing tessellations and tangrams, a giant geoboard and dominoes. Those interested in architecture will enjoy the *Blueprint House*, where kids will be able to brush up on their geometry, spatial sense and problem-solving skills.

HUNSTEM Conference 2009!

HUNSTEM is planning a conference for early 2009 on Houston's learning community development, and we need your help!

Houston is rich in informal and professional STEM resources, but it's often difficult for teachers to know about or find the resources

that are locally available. Professional Societies and informal science centers are often confounded by how to get their resources to more teachers and families.

HUNSTEM was designed to bring all members of Houston's learning community together. To help

do this we are holding a STEM Education Conference in early 2009 to discuss how to bridge the gaps between teachers, ISE's and Professional Societies.

Let me know what you'd like to see from this conference. Send me your ideas:

hogeb@uhd.edu

IEEE Introduces TryEngineering.org

TryEngineering.org is a resource for students (ages 8-18), their parents, their teachers and their school counselors. This is a portal about engineering and engineering careers, and we hope it will help young people understand better what engineering means, and how an engineering career can be made part of their future.

Students will find here descriptions of the lifestyles and experiences of engineers, and on the different disciplines within engineering. We provide hands-on experiments and activities, referrals to summer

programs and internship opportunities, and search tools for schools that offer engineering programs. Useful tips on course selection, applying to university programs and financial aid are included.

Students can also use this portal to send questions to engineering students in universities and to practicing engineers.

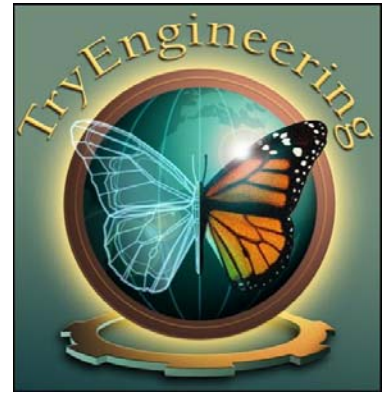
Parents and educators will find here, in addition, teaching resources, information about school accreditation, and description of plans, organizations and

programs that can be of help in planning and preparing students to develop a future career in engineering.

This portal is brought to you by engineers and educators, and is a collaboration of engineering associations, industry, and teacher/counselor organizations. We all believe that engineering is an exciting and rewarding profession, and invite you to share in our enthusiasm about this rich and influential discipline.

Check it out:

<http://www.tryengineering.org/home.php>



IEEE Houston Section - TISP

IEEE Houston Section Student Activities Committee would like to invite Houston area educators (K-12) to take part in our Teachers In-Service Program (TISP) workshop.

You can learn more about TISP at IEEE's www.TryEngineering.org website.

This website has an extensive list of standardized lesson plans for teachers' usage in a classroom setting under a wide range of formats to encourage students to learn about science, math, technology and engineering. This

program is designed for more than just science and math teachers. Rather, we would like to invite teachers from K-12 grades and school administrators in different disciplines to participate.

Our goal is to partner with the different school districts to set up their own in-service workshops to utilize this valuable resource offered by IEEE. At the same time, we are trying to train a pool of volunteer of practicing engineers to go into our partner school districts to implement this program.

Saturday, February 9, 2008

Workshops scheduled between 9:00 a.m. – 3:30 p.m.

There is no cost to the participant for this workshop

Get a copy of the latest brochure:

[http://www.ieee-houston.org/Societies/Brochure IEEE%20Houston 7 Oct 2007.pdf](http://www.ieee-houston.org/Societies/Brochure%20IEEE%20Houston%207%20Oct%202007.pdf)

*"TISP =
Teachers In-Service
Program."*



Science Fair Science Buddies

Science Buddies is a non-profit organization focused on providing free science fair ideas, answers, and tools for students in grades K-12.

Our online resources have been integrated into the NSTA's SciLinks program and have received praise from students, teachers, and parents across the nation.

Science Buddies empowers students from all walks of life to help themselves and each other develop a love of science and an understanding of the scientific method. Our innovative online tools and programs encourage, acknowledge, and reward student research projects, and aim to increase science fair participation.

Try it out here:

www.sciencebuddies.org

If you like what you find, recommend Science Buddies to students and teachers interested in participating in your science fair.

What does PBL look like?

[PBLnet] Digest Number 348

PBLnet@yahoogroups.com

Posted by: "jkrauss321"
jane.krauss@gmail.com
jkrauss321

Sat Dec 1, 2007 1:27 pm (PST) With emerging digital tools of the Web 2.0 variety we are able to show

-rather than just tell- what PBL is about. Please join the growing group of educators from around the world who are **documenting PBL in action** in the Reinventing PBL group on Flickr.

<http://www.flickr.com/groups/reinventingpbl>

The purpose of PBLnet is to communicate with one another in order to share and forward information of significance to the PBL community.

To subscribe to PBLnet send an e-mail to:

PBLnet-subscribe@yahoogroups.com

Petticoats and Slide Rules

The Society of Women Engineers – Houston Area is proud to host the special historical exhibit "Petticoats and Slide Rules: SWE, A History of Women Engineers" during the first five months of 2008. The exhibit pays tribute to trailblazers and pioneers, from before the "blue jeans" era to the present. The exhibit is an "interactive" history featuring materials from the SWE historical collection at the Reuther Library located at Wayne State University.

Photos, videos, interviews and artifacts highlight over five decades of promoting equal opportunity for women in engineering, as well as inspirational stories of women who "paved the way" for future generations. While the Petticoats and Slide Rules Exhibit is being shared with the community in Houston, a display which includes pictures and stories of local engineers will be included to highlight the reality and impact anyone and everyone can make.

January 24, 2008 – Opening debut: 6-8pm at The Houston Aquarium, 4100 Babgy Street
 Speaker: Dr. John H. Leinhard, author and voice of The Engines of Our Ingenuity on KUHF 88.7 FM, MD Anderson Professor Emeritus of Mechanical Engineering and History at the University of Houston

\$20 ticket includes appetizers and drinks

For more information:

www.swehouston.org/Petticoats.html

Society of
Women Engineers

ASPIRE • ADVANCE • ACHIEVE

Energy 4 Me

Another great energy education website has been launched from Houston. It is:

www.energy4me.org

From the Society for Petroleum Engineers (SPE).

For more than 50 years, the Society of Petroleum Engineers has pursued its mission of sharing technical knowledge about the upstream oil and natural gas industry for the benefit of our industry and for the general public.

SPE is a not-for-profit professional association whose members are more than 73,000 energy professionals in 110 countries. SPE provides services through

publications, conferences, workshops, forums, and website.

SPE has made a special effort to support this goal of sharing knowledge by establishing energy4me, a website for students, teachers and the public designed to help students and adults become more educated energy consumers.

SPE's energy4me program is both a public outreach program and web resource.

SPE members are available to speak to classrooms (primary, middle and secondary students) about energy in our everyday lives and about career opportunities.

[Teachers can request a presentation using this form](#)

SPE also sponsors teacher workshops at SPE events, and addresses teachers at their professional events. To request information about SPE's teacher outreach, please email energyed@energy4me.org

We also offer comprehensive information about [energy careers](#). SPE's local sections offer scholarships for students interested in pursuing careers in petroleum engineering and related fields. [Find out what's available](#) by region around the globe.



National Academies of Science

A new book is available from the National Academy of Sciences:

[**Science, Evolution, and Creationism, 2008 Edition**](#)

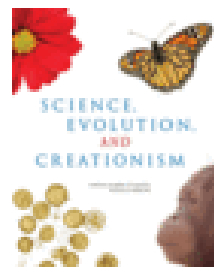
The National Academy of Sciences and Institute of Medicine have released SCIENCE, EVOLUTION, AND CREATIONISM, a book designed to give the public a comprehensive and up-to-date picture of the current scientific understanding of evolution and its importance in the science classroom. Recent advances in science and medicine, along with an

abundance of observations and experiments over the past 150 years, have reinforced evolution's role as the central organizing principle of modern biology, said the committee that wrote the book.

The Academy, which operates under Congressional mandate to advise the government on scientific matters, issued the report at a time when the theory of evolution, first proposed in the 19th century, faces renewed attack by religious Creationists in the United States. Despite the overwhelming evidence supporting evolution, opponents have repeatedly

tried to introduce nonscientific views into public school science classes through the teaching of various forms of creationism, intelligent design, or bogus "weaknesses" of evolution.

[Click here to download the free PDF of the Science, Evolution, and Creationism summary brochure.](#)



"SCIENCE, EVOLUTION, AND CREATIONISM provides the public with coherent explanations and concrete examples of the science of evolution." - Ralph Cicerone, President of the National Academy of Sciences.

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We're on the Web!

See us at:

<http://hunstem.uhd.edu>

Back Page Story

STOP The Institute for Creation Research plan to obtain official Texas certification from the Texas Higher Education Coordinating Board

Go here to read the many newspaper articles:

<http://www.texscience.org/reviews/icr-theccb-news-articles.htm>

About HUNSTEM

We believe that inquiry-driven, problem-based STEM (science, technology, engineering and mathematics) lessons are the best teaching method to attain increased science literacy. HUNSTEM will promote the use of inquiry-driven, problem-based science curricula in all classrooms in the Houston area. HUNSTEM will encourage problem-based curricula through collaboration between teachers, school administrators, curriculum directors and developers, and the ISE and professional resources of the Houston community. HUNSTEM will spread the message of inquiry-driven, problem-based science throughout the Houston area by establishing a vanguard of effective teachers who will encourage and support beginning and science-shy teachers in their schools. HUNSTEM will provide the resources and training for all K-12 teachers of science to become more confident and effective. Houston is rich in professional organizations dedicated to promoting STEM. HUNSTEM will build professional networks in each area of STEM in the Houston area. HUNSTEM will connect these organizations to teachers and families more effectively than they can do through their own efforts. By building these networks of professional organizations into the HUNSTEM web site, they will be able to target their audience, and teachers, parents and students searching for resources will find them. HUNSTEM will also help informal science centers reach their audiences more effectively by encouraging curricula and curricula development that utilizes the resources of the various museums, nature centers, zoos and parks in the Houston area.

Go here to read:

[A REPORT BY TEXAS CITIZENS FOR SCIENCE](#)

Steven Schafersman,
TCS President
2007 December 17
Updated: 2008 January 6

To learn more about
Texas Citizens for
Science, go to:

<http://www.texscience.org/>

This is VERY important,
and we all need to get
behind it!

