

E-Blast # 2 April 2011

For information on the following educational offers and resources please visit the LSTA website at: http://lsta.info/eblasts/2011/eblast_april_2011_2.pdf

1. APRIL IS MATHEMATICS AWARENESS MONTH!
2. Free access to Ocean Literacy issue of Science Activities during April
3. K-12: EPA Environmental Education Grant; Deadline May 2
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9. Sigma® Life Science, How Will Your Bio Shape The Future?
10. National Geographic and ESRI GeoMentor Program
11. K-12: The Great Green Web Game <http://go.ucsusa.org/game/>
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1. APRIL IS MATHEMATICS AWARENESS MONTH!

The American Mathematical Society, the American Statistical Association, the Mathematical Association of America, and the Society for Industrial and Applied Mathematics have announced that the theme of Mathematics Awareness Month 2011 is "Unraveling Complex Systems." This year's theme was developed to explore the mathematics behind such complex systems as living cells, insect colonies, and whole ecosystems to man-made inventions like power grids, transportation networks, and the World Wide Web. The theme will examine how mathematics can help unravel well-structured networks and discernible patterns in natural and artificial structures. Understanding these complex systems can not only help us manage and improve the reliability of such critical infrastructures of everyday life, but can also allow us to interpret, enhance, and better interact with natural systems. Mathematical models can delineate interactions among components of these systems, analyze their spontaneous and emergent behaviors, and thus help prevent undesirable developments while enhancing desirable traits during their adaptation and evolution.

Mathematics Awareness Month, held each year in April, was created to increase public understanding of and appreciation for mathematics. Activities for Mathematics Awareness Month generally are organized on local, state, and regional levels by college and university departments, institutional public information offices, student groups, and related associations and interest groups. More details and related educational resources are at www.mathaware.org.

2. Free access to Ocean Literacy issue of Science Activities during April
Science Activities magazine has put ALL the lesson plans from the special Ocean Literacy issue [Fall 2009] online for access during the whole month of April! Lessons range from elementary to high school and were developed by educators from COSEE, NOAA and GK-12 programs. Go to www.informaworld.com/VSCA and choose [Volume 46, Issue 3](#) for access.

3. K-12: EPA Environmental Education Grant

<http://www.epa.gov/enviroed/grants.html>

The U.S. Environmental Protection Agency (EPA) is accepting grant applications for \$1.9 million in funding for environmental education projects and programs that promote environmental stewardship and help develop knowledgeable and responsible students, teachers and citizens. EPA expects to award at least 20 grants nationwide ranging between \$15,000 and \$100,000. The deadline to apply is May 2, 2011.

4. The Louisiana Geography Education Alliance, the National Geographic Society, GISetc, and the Louisiana Science Teachers Association are sponsoring a **GIS-GPS workshop**.

When: Wednesday, June 1 - 3, 2011 at

Where: Nicholls State University, Ayo Hall, Thibodaux, La.

Cost Notes:

a. A Registration fee to the **GIS-GPS workshop** (\$50) will hold your spot for the workshop and be returned to you at the conclusion of the workshop. This refundable registration fee is due by May 13.

b. LSTA is offering a \$25/day stipend to members who attend the three days to assist with the cost of travel.

Provided workshop materials: Participants will receive a copy of *Mapping Our World Using GIS* and a 50-seat license to use GIS at your campus for one year. You will also receive numerous maps and other teacher materials from the National Geographic Society.

During this workshop science, social studies, CTE & gifted teachers will learn how to integrate GIS and GPS in your daily curriculum in a way that will make learning fun, exciting and hands-on.

Lunch will be provided each day and an afternoon snack.

5. World Ocean Day – June 8

World Ocean Day is June 8, 2011, when organizations and individuals from around the world come together to celebrate our world ocean; reflect on the ocean's importance in our lives; and take time to do something good for our blue planet. The theme for 2011 is *Youth: the Next Wave for Change*. The Ocean Project sponsors this website to coordinate World Ocean Day events with resources, tools, and activities.

http://worldoceansday.org/wod_theme.php

6. NSTA New Science Teacher Academy Fellowships

NSTA fellowships offer grade 6-12 teachers in their second or third years of teaching a year-long immersion in a host of science-related activities and professional development opportunities. The deadline for application is June 13, 2011.

<http://www.nsta.org/academy/>

7. Indiana University has been awarded a federal education grant to study the effectiveness of an online learning tool for chemistry called CALM (Computer Assisted Learning Method). CALM was developed in 1996 by the Department of Chemistry at Indiana University, Bloomington and is primarily used by chemistry teachers in the form of an online homework system that allows the assessment and tracking of student performance to chemistry questions. CALM has been and will continue to be a free service for teachers and students.

CALM is recruiting teachers for the final year of a three year randomized control study. We are looking for approximately 70 teachers who have not used CALM in the past and are teaching at least one general chemistry course in the fall of 2011.

Participating teachers will receive a \$150 stipend. Also, because all teachers participating in the CALM study (those assigned to both treatment and control groups) will receive training during a CALM workshop on IU's campus, teachers may be eligible to count the workshop time as up to 12-15 hours of professional development. The workshop aligns with most states' professional development standards as it addresses the integration and utilization of technology inside and outside of the classroom, furthers content knowledge, helps to plan instruction that is appropriate for students at all levels, and facilitates the development of alternative teaching methods for differentiated instruction.

Please contact Rebekah Sindors for additional information: rsindors@indiana.edu

8. The Science@NASA team is pleased to announce a new product: the ScienceCast. Every week, we produce a short video highlighting a topic in NASA science news. This week's episode is about the night sky. Check out "Spring is Fireball Season" on Youtube: <http://www.youtube.com/watch?v=ssMdlTbvHJk>

A complete list of ScienceCast episodes may be found on Science@NASA's Youtube channel: <http://www.youtube.com/user/ScienceAtNASA> . Enjoy!

9. Sigma® Life Science Asks Students, How Will Your Bio Shape The Future?

Let us help you inspire young minds. Students, teachers and the scientific community all over the world are coming together for a chance to win a lab makeover from Sigma Life Science. We're looking for the most creative and innovative videos from future scientists. Team up with your students to tell us where

bio will take them, and your school could be the grand prize recipient.

To enter, students must submit a 2-3 minute video that addresses the question, "How will your Bio Shape the Future?"

Visit sigmabiogrant.com to learn more, sponsor a local school or to submit a video.

10. GeoMentor Program

National Geographic and ESRI have created this program to inspire educators and community members to work together to improve student learning. The GeoMentor program is designed to inspire volunteers to work with a teacher or youth club leader to help kids see, use, and do more geography in and out of classrooms.

<http://edcommunity.esri.com/geomentor/>

11. K-12: The Great Green Web Game <http://go.ucsusa.org/game/>

The Great Green Web Game, which was created by the Union of concerned Scientists, is a fun way to test your students' knowledge of how consumer choices affect the environment. It raises student awareness of the impact that humans have, because of their habits and choices, on the environment. The development of such an understanding is critical for all 21st Century citizens.

As students answer various questions and try to purchase those things which are environmentally friendly - "shop green" - they receive a score on the built-in Envirometer which gauges the cumulative impact of their choices.

The centerpoint on the Envirometer represents the impact of an average American household on the environment. At the end of the game students can compare this average to their own impact on natural habitats, air quality, water quality and the sustainability of our climate.

12. Science Companion offers free lessons and a Virtual Field Trip

<http://www.sciencecompanion.com>

Go on a virtual tour of planetariums to see what the sky brings, together with a new activity on Sky and Weather from the latest edition of their Early Science Explorations module.

At the site you can download their Sky & Weather Virtual Field Trip! (Fair warning: this is a commercial curriculum developer, so there is some advertising between the virtual field trip and the lessons to support the students' learning about stars, including our sun. Keep scrolling to the lessons which are at the end of the .pdf document!)

Science Companion Virtual Field Trips are a "Science in Real Life" series from Science Companion, pairing a hyperlinked PDF lesson from one of their modules with a place or

current event. Science Companion is a Pre K-Grade 6 inquiry science curriculum created by the founding authors of Everyday Mathematics.

13. PBS Design Squad Nation: “One Giant Leap” <http://pbskids.org/designsquad/>

A new full-length episode of PBS Design Squad Nation is now available online. In this episode, engineers Judy and Adam invite Felipe -- an accomplished 15-year-old pilot from Miami, Fla. -- to compete in the 2010 Red Bull Flugtag competition. Together, they team up with NASA to design and build a human-powered flying machine. With their NASA-inspired glider design, Team One Giant Leap soars off a 30-foot high deck, impressing the judges with distance and style.

Click the links below to view the episode online.

Part One: <http://www.youtube.com/watch?v=bLYzD4ukQ4s>

Part Two: <http://www.youtube.com/watch?v=5w7zluiYt2Q>

14. Use Science to Crack the Case

Rice University, in partnership with the Forth Worth Museum of Science and History, the American Academy of Forensic Sciences and CBS, has created CSI: Web Adventures, a game designed to introduce middle school students to forensic science through cases based on the popular TV-show franchise about crime-scene investigations. During the game, students identify shoeprints, test DNA and interview suspects in order to crack the case. The game outlines which academic standards it covers and was crafted with learning objectives in mind. Please visit:

<http://forensics.rice.edu>

15. The Sally Ride Science Festival at LSU will be on September 24, 2011!

Place: Louisiana State University in Baton Rouge, LA

Date: Saturday, September 24

Time: 11:00am to 4:15pm

Fee: \$20

Early Registration Discount: Register by June 15 for only \$15!

Presented by ExxonMobil, the Sally Ride Science Festival includes:

- An inspiring talk by a featured speaker
- Discovery workshops for girls, which may be given by local veterinarians, astronomers, microbiologists and more
- Workshops for parents and teachers on ways to support girls' interests in science
- A street fair with booths, hands-on activities, food, and music

While our festivals are primarily focused on encouraging 5th-8th grade girls to pursue their interests in science, everyone is welcome to attend!

Don't miss out—advanced registration required!

Sign up now at <http://www.sallyridefestivals.com> Or call us at 1.800.561.5161