

E-Blast # 2 October 2010

It's conference time! Whether you are headed to New Orleans for NCTM or Monroe for LSTA you are in for a wonderful time of learning while making new friends in colleagues from other locations in- and out-of-state. Be sure to share the information gained with your colleagues when you return home.

Travel safely.

For information on the following items please visit the LSTA website at: www.lsta.info

1. NSF Kids Science Challenge
2. Make a Difference Day October 23rd
3. Great World Wide Star Count October 29th
4. America Recycles Day November 15th
5. 2011 Team America Rocketry Challenge
6. National Science Board Report STEM Innovators
7. Free online Spigot Magazine issues
8. PBS's Wild Baby Animal Explorers program and magazine
9. Legend of the Guardians Teachers' Guide
10. Einstein Fellows Application Process now open for 2012
11. Alan Shepard Technology Award in Education
12. Online interactive tools for teaching Acid Oceans
13. Free Science and Math Videos

1. Gr 3-6: Announcing the 3rd Kids Science Challenge, sponsored by NSF
<http://kidsciencechallenge.com>

This is a free nationwide competition for third to sixth graders, made possible by the National Science Foundation. The Challenge period began on October 1 and runs until February 28, 2011, which is the deadline for all entries to be postmarked.

Each year, the Kids Science Challenge presents three science topics and offers a whole suite of resources on these topics for both students and educators. Through this web site you can access free curricula and activities, and online video, games and other materials involve your students in science inquiry, as well as learn more about the contest.

Students may enter as individuals or teams, sending in an idea for one of the topics. If their idea is chosen, they get to visit and collaborate with a scientist or engineer to see their idea come alive, plus win other fun prizes. The first thousand entrants receive a free hands-on science kit, with activities in each of the science topics.

KSC winners have been featured on The Today Show, the Washington Post, Time Magazine for Kids, Scholastic Magazine, My Weekly Reader and many other media outlets.

This year's topics are:

** Magical Microbes - can you come up with a new way that microorganisms can help us?

** Super Stuff for Sports -using materials science, can you find a way to make your favorite sport safer or more fun?

** Sensational Sounds - can you dream up a new kind of musical instrument?

2. Make a Difference Day on October 23

October 23, 2010 marks the 20th anniversary of Make A Difference Day, the largest national day of community service. Held annually the fourth Saturday of October, Make A Difference Day is sponsored by USA WEEKEND and Hands On Network, a business unit of Points of Light Institute. Hands On Network invites you to Get Hands On for Make A Difference Day. This site will equip you with templates and toolkits to launch your own project or volunteer for an existing project in your area. For more information, please visit:

<http://www.handsonnetwork.org/nationalprograms/signatureevents/MakeADifferenceDay>

3. GREAT WORLD WIDE STAR COUNT (Oct. 29-Nov. 12)

The Windows to the Universe project announces its upcoming citizen science campaign – the Great World Wide Star Count. In this campaign participants will make observations of the magnitude of either the constellation Cygnus (for the northern hemisphere) or Sagittarius (for the southern hemisphere) using magnitude charts and report their observations online. All observations will be assembled to see the effect of light pollution on our ability to view the night sky.

To learn more, please visit: http://windows2universe.org/citizen_science/starcount/

4. America Recycles Day is November 15

Since 1997, communities across the country have come together on November 15 to celebrate America Recycles Day. More than a celebration, America Recycles Day is the only nationally recognized day dedicated to the promotion of recycling programs, in the United States. One day to inform and educate! One day to get our neighbors, friends and community leaders excited about what can be accomplished when we all work together! One day to make recycling bigger and better 365 days a year! For more information, please visit:

http://www.kab.org/site/PageServer?pagename=ard_homepage

5. 2011 Team America Rocketry Challenge

Registration is open for the Team America Rocketry Challenge 2011, a national model rocket competition for U.S. students in grades 7-12. Thousands of students compete each year, making TARC the world's largest model rocket contest. Teams of three to 10 students are challenged to design, build and fly a model rocket that will climb to 750 feet with a raw egg payload and stay aloft for 40 to 45 seconds. The payload must then return to earth unbroken. Cash prizes are awarded to the top finishers. NASA invites top teams to participate in their Student Launch Initiative, an advanced rocketry program.

Participation is limited to the first 750 teams who register by November 30, 2010. For more information, visit <http://www.rocketcontest.org>
Questions about this contest should be sent to rocketcontest@aia-aerospace.org

6. The National Science Board has released a new report, "[Preparing the Next Generation of STEM Innovators: Identifying and Developing our Nation's Human Capital](#)." The National Science Board firmly believes that to secure our Nation's long-term prosperity we must identify and develop the talented young men and women who will become the next generation of STEM innovators. This endeavor begins with educational opportunities: the opportunity to achieve to the best of one's ability, the opportunity to think creatively, and the opportunity for the engagement and excitement that STEM provides. As a result of the research, the Science Board has identified three major areas where they believe focused attention is essential. First, while there are some examples of high-impact educational policies and practices that are effective in enabling tomorrow's potential STEM innovators to thrive, many more are needed. Second, a commitment to equity and diversity, and analyses of demographic trends, lead to the conclusion that new and ambitious efforts to cast a wide net in seeking and inspiring tomorrow's STEM leaders are critical. Finally, the Science Board says that when the learning environment is infused with high expectations and a commitment to excellence, the potential for future innovators to flourish is great. To identify and develop the next generation of STEM innovators, the Board makes three keystone recommendations:

- Provide opportunities for excellence. Students should learn at a pace, depth, and breadth commensurate with their talents and interests and in a fashion that elicits engagement, intellectual curiosity, and creative problem solving -- essential skills for future innovation.
- Cast a wide net to identify all types of talents and to nurture potential in all demographics of students.
- Foster a supportive ecosystem that nurtures and celebrates excellence and innovative thinking.

Contained within each keystone recommendation are multiple specific policy actions for NSF, the federal government, and/or the nation. Additionally, the Board proposes a research agenda for each keystone recommendation. These research findings will inform policy-making in critical areas, such as how to nurture early interest in STEM, best practices for developing STEM related abilities, and means for improving teaching effectiveness.

7. Free SPIGOT Science Magazine for Kids and Classrooms

SPIGOT Science Magazine for Kids and Classrooms is published several times per year. It is a free "green" magazine published to promote science literacy and to encourage students in grades 4-9 to pursue study in this field. Find the magazine at www.spigotsciencemag.com. The newest resource added to the SPIGOT collection is "Rocks and Minerals." Students learn about rocks and minerals while doing hands-on

science, math, choral reading, and other interesting lessons. They even find out how to use a GPS to visit nearby geologic wonders.

8. The new Wild Animal Baby Explorers public television educational series for kids is now being carried by stations in the Public Broadcast Network across America. – By January the program will be in 75% of U.S. viewing areas. This terrific NWF TV production team has also developed a Spanish language version of the program which will reach some 40 million homes including eight million Hispanic homes.

<http://video.nwf.org/pages/wild-animal-baby-explorers>

The series is aimed at 3 to 8 year old children and is based on our award winning Wild Animal Baby magazine – a consistent Parents' Choice winner. It is a mix of an animated and real life format with its creature characters conducting science based and fascinating explorations of nature and encouraging viewers to explore their own outdoors and backyards.

Here is the WETA program schedule:

<http://www.weta.org/tv/programsatoz/program/75286>

Here is a video introduction to the characters:

<http://video.nwf.org/video/Meet-the-Wild-Animal-Baby-Explo#c=GF1H5T07QZM9BMTP&t=Meet%20the%20Wild%20Animal%20Baby%20Explorers!>

9. The National Wildlife Federation (NWF) has teamed up with the Warner Bros. on the feature film **Legend of the Guardians: The Owls of Ga'Hoole** to inspire children and families to learn about wildlife and protect habitat. The animated creature voices include those of celebrated actors Helen Mirren and Sam Neill.

The film follows the adventures of Soren, a young owl enthralled by his father's epic stories about the Guardians, a mythic band of winged warrior owls. The youngster soon embarks on his own daring quest to find his heroes and save all of owlkind. NWF is the production's education partner. <http://www.prweb.com/releases/NWF/Owl-Movie/prweb4542114.htm>

“Warner Bros. is pleased to partner with the National Wildlife Federation and admires its efforts to inspire families to protect wildlife. Legend of the Guardians is a film that showcases nature and will have kids thinking about how they can help owls and other species and habitats,” said Nicole Sedita, Warner Bros. Vice President for National Promotions. Check it out our joint educational materials:

<http://www.nwf.org/About/NWF-at-the-Movies/Legend-of-Guardians-Owls-of-GaHoole.aspx>

10. Einstein Fellowship - Application Now Open!

The Albert Einstein Distinguished Educator Fellowship is a paid fellowship for K-12 math, science, and technology teachers. Einstein Fellows spend a school year in Washington, DC serving in a federal agency or on Capitol Hill. To be considered for an Einstein Fellowship for the 2011-2012 school year, apply and submit three letters of recommendation online by January 4, 2011.

For more information about the Einstein Fellows program visit <http://www.trianglecoalition.org/ein.htm> or contact Program Manager Kathryn Culbertson at culbertsonk@triangle-coalition.org.

11. 2011 Alan Shepard Technology in Education Award

Do you know K-12 teachers or district-level administrators who are making a difference in education through the use of technology? Recognize their achievements by nominating them for the Alan Shepard Technology in Education Award. The Astronauts Memorial Foundation, in partnership with NASA and the Space Foundation, will recognize the accomplishments of one outstanding individual and his or her contributions to lifelong learning through the application of technology in the classroom or professional development of teachers.

Technology personnel and K-12 classroom teachers who have demonstrated exemplary use of technology to enhance learning are eligible for this award. School principals, superintendents or associate superintendents may nominate eligible candidates. The award will be presented in April 2011 at the 27th National Space Symposium in Colorado Springs, Colo. The deadline for applications is **Jan. 15, 2011**. Applications and more information are available online at http://www.amfcse.org/Alan%20Shepard%20Award/alan_shepard_award.htm. Questions about this award should be directed to amfreq@amfcse.org.

12. On-line interactive teaching tools for Acid Oceans. Two URLs and they both go to the same lab.

<http://i2i.stanford.edu/carbonlab/co2lab.swf>

OR

<http://virtualurchin.stanford.edu/AcidOcean/AcidOcean.htm>

NOVA Teachers Domain "Climate Collection" offers short video clips useful for the classroom as well as teaching activities on various issues of Climate Change. The videos have been edited and shortened from NOVA and other programs. For continued access to this resource you will need to set up an account. It's free.

http://www.teachersdomain.org/browse/?fq_hierarchy=k12.sci.ess.watcyc.climate

And finally NASA's visualization pages offers short animated clips of their satellite images showing changes to earth systems.

http://www.nasa.gov/centers/goddard/earthandsun/climate_change.html

13. Free Science and Math Videos

The Khan Academy is all about using video to explain the world, so what better way to explain the Khan Academy than through videos. If you watch four or five of the videos found below, you should have a pretty good idea of how they got started and how they hope to empower everyone, everywhere with a free, world-class education. Check them out at:

<http://www.khanacademy.org/#browse>