



SCIENCE BYTES

August 19, 2008 VOLUME 1

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Earth Science Week Toolkits

Earth Science Week Toolkits will be released starting this month. To ensure that you are among the first to receive these exciting educational resources, order yours today.

The Earth Science Week 2008 Toolkit includes:

- * A 'Journey to Center of Earth 3D' Educator Guide
- * The new Earth Science Week poster, including an activity
- * A geological poster with 3D glasses from USGS
- * A 12-month school-year activity calendar, suitable for hanging
- * A 3D postcard on polar geoscience from NASA
- * A National Park Service poster on caves nationwide
- * A CD of Earth Observations from Space from NASA
- * Climate literacy materials provided by NOAA
- * A genuine field notebook, with an activity, by Rite in the Rain
- * A CD on GIS technology and activities from ESRI
- * An EarthCaching CD by the Geological Society of America

- * Information about the National Wildlife Refuge System
- * A careers brochure, magnet bookmark, fact sheets, and more. For ordering, special shipping, bulk orders, and more information,

<http://www.earthsciweek.org/materials/index.html>.

Earth Science Meetings and Events

During Earth Science Week

Mark your calendar! Earth Science Week 2008 (October 12-18) will include a number of major events nationwide for geoscience professionals, educators, students, and enthusiasts:

- * **National Wildlife Refuge Week, October 12-18**, will celebrate one of the best-kept secrets of our natural world. Sponsored by the U.S. Fish and Wildlife Service, a new Earth Science Week partner, this week focuses on lands and waters where wildlife and habitats are under federal protection. For information and educational resources, see <http://www.fws.gov/refuges> online. Got to the National Wildlife Refuge Locator's map at <http://www.fws.gov/refuges/refugeLocatorMaps/index.html> to find refuges near you.

- * **The North American Association for Environmental Education (NAAEE) 2008 Conference** is being held October 15-18 in Wichita, Kansas. Featured speakers include Kansas Gov. Kathleen Sebelius; Gail Kimbell, the first female chief of the U.S. Forest Service; and Jerome Ringo, a former petrochemical industry representative and National Wildlife Federation board member. NAAEE has promoted excellence among environmental educators for 36 years. For information, see <http://www.naaee.org/conference>.

- * And those interested in climate change can check out the **IGLO Preconference on October 17 at Philadelphia's Academy of Natural Sciences**, prior to the 2008 Annual Conference of the Association of Science-Technology Centers (ASTC), a key Earth Science Week partner. IGLO (International Action on Global Warming) will host an all-day session on measuring your "carbon footprint." The preconference will address the science and economics of carbon emissions, challenges of engaging citizens in controversial issues, and ways to present such information in museums. To learn more, see <http://www.astc.org/conference/registration.htm> online or email iglo@astc.org.

NSTA Regional Conferences – 2008

October – Charlotte, NC: October 30-November 1, 2008

November – Portland, OR: November 20-22, 2008
December – Cincinnati, OH: December 4-6, 2008
2009 National NSTA Conference
New Orleans, LA – March 19-22, 2009

18th Annual United Nations Environment Program's International Children's Painting Competition.

We would like to inform you about the 18th Annual United Nations Environment Program's International Children's Painting Competition. The United Nations Environment Program's International Children's Painting Competition, which has been held since 1990, invites children between the ages of 5 and 13 years to submit their paintings on the theme for that particular year to their Regional UNEP Office. The competition encourages children from all parts of the world to focus on particular environmental issues and how these issues affect their communities.

This year's theme is "Climate Change: Our Challenge". The regional first prize winners will each receive a cash prize and a trip for them and an accompanying adult to the 2009 Tunza International Children's Conference (venue and date to be confirmed later). Regional winners will be announced on Earth Day, April 22, 2009. The award ceremony for the North American winner will be held on the beautiful grounds of the United States Botanic Garden in Washington D.C., one of the oldest botanic gardens in North America.

See further details concerning entry rules and conditions in the URL below. The deadline for all entries is 15, January, 2009. Please note that only hard copies of paintings will be accepted.

For information, please go to the following URL:

http://www.unep.org/tunza/children/inner.asp?ct=competitions=int_comp_comp=18th
<http://www.unep.org/tunza/children/inner.asp?ct=competitions&comp=int_comp&int_comp=18th>

Should you need any further information, please do not hesitate to contact your Regional Office of the United Nations Environment Program.

Regional Contacts

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Seminars on Science

Seminars on Science is offering two Fall sessions of award-winning online graduate courses in the life, earth and physical sciences, starting this September 1st.

Courses may meet your local professional development needs, including degree, certification, NCLB and salary gradation requirements. Check out the Seminars on Science website for complete information, including free sample resources—essays, videos, and interactives—from all of our online courses. Visit learn.amnh.org for more information and to register.

<<http://learn.amnh.org/welcome.php?w=SOSS07>>

Fall Courses:

- Earth: Inside and Out
- Evolution
- Genetics, Genomics, Genethics
- The Ocean System
- Space, Time and Motion (Fall 1 only)
- The Link Between Dinosaurs and Birds (Fall 2 only)
- The Solar System (Fall 2 only)

Graduate Credit

- Graduate and CEU credit is available from several institutions (see website for details
<<http://learn.amnh.org/grad>>).

Registration Dates

- Fall 1: Courses run September 1 – October 12. Register by August 18.
- Fall 2: Courses run October 20 – November 30. Register by October 6.
- Sign up early and receive a \$50 discount off the price of each course (see website for details).

The Course Experience

- Designed for K-12 educators, each six-week course is led by an experienced classroom teacher and a scientist affiliated with the American Museum of Natural History.
- In-depth readings and assignments paired with rich web-based discussions assure that educators come away from each class with a deeper understanding of both the science and the tools of scientific inquiry. You will also receive a CD of course resources.
- All you need is an Internet connection. The coursework is designed to be flexible for the busy teacher. There are weekly activities you must complete, but the time and day that you complete them is up to you.

Current Information

- Please visit our Web site for the most up-to-date information: learn.amnh.org
<<http://learn.amnh.org/welcom.php?w=SOSSP07>>
- If you have additional questions, please email us at seminfo@amnh.org or call (800)649-6715.

Flinn Scientific Announces

Kinetics and Reaction Rates New Activity-Stations Laboratory Kit

Flinn Scientific's new laboratory kit, Kinetics and Reaction Rates, allows your students to explore five "mini-lab" activities in a single laboratory session. This convenient kit makes it possible for you to offer more labs in less time—during one uninterrupted lab period—helping students understand the complexities of kinetics.

Each tested lab activity focuses on one of the following five factors that influence how fast a chemical reaction will occur: Surface Area; Reactant Concentration; Temperature; Nature of the Reactants; Catalysts

Student groups rotate through the five stations in any order and it only takes about ten minutes to complete each activity. All the chemicals and consumable supplies you need are included along with background information, sample data, and reproducible student handouts. The kit is complete for a class of 30 students working in groups of three.

Kinetics and Reaction Rates (Catalog Number AP7192) is an exclusive new product available from Flinn Scientific for \$53.50 plus shipping. To order, or for more information, call 1-800-452-1261.

Free Biology Activities

Flinn Scientific offers a series of fun demonstrations and innovative teaching ideas for biology and life science teachers called BioFax!

BioFax! activities are guaranteed not only to excite your biology students, but also to teach valuable and sometimes difficult-to-learn concepts that are relevant to National Science Education Standards. Two BioFax! are now available:

Amino Acid Fingerprints – Your students have probably seen it on TV . . . invisible fingerprints—hidden clues at a crime scene—are revealed by forensic scientists. How do they do it? In this free biology lab idea from Flinn Scientific entitled "Amino Acid Fingerprints," your students will learn that amino acids, the building blocks of proteins, are involved in solving this mystery. Forensic detectives use ninhydrin, a colorless organic compound, which reacts with amino acids in skin oils to form a bright

purple product. Students can duplicate the procedure in the classroom to reveal their own purple "Amino Acid Fingerprints."

Translation and Transcription and Replication, Oh My!

Here is a terrific DNA activity designed to help introduce some often challenging concepts. "Translation and Transcription and Replication, Oh My!" is also a great choice for students who show improved learning when using paper-and-pencil activities. Using one folded sheet of paper, each student creates simulations of translation, transcription, and replication. As students continue their study of DNA, this sheet can serve as a handy reference and review.

BioFax! are free to teachers only. To access your copies please go to:
<http://www.flinnsci.com/biofaxpr2008.asp>

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Web site: www.flinnsci.com <<http://www.flinnsci.com/>>

Mapping Alaska Communities Workshop: Intro to GIS and Community Analysis

August 21st and 22nd, 2008 8:30 am - 4:30 pm (Two separate one day workshops offered.)

University of Alaska Anchorage - 3801 Old Seward Hwy.
Room 149 Anchorage, AK 99501

Register Online/Get More Info

If you are unable to follow the link, please visit www.nur-online.com

Audience: Beginners, anyone interested in mapping their community

Participants will learn to use ArcGIS 9.2 to do the following:

Creating thematic maps

Participants will learn to create thematic maps of their own data, and display spatial trends in information.

Address mapping (geocoding)

Participants will learn to map addresses of their clients, their projects or incidents such as crime or disease.

Download and map Census & American Community Survey data

Participants will learn to extract and map current Census data such as poverty, race, language, population, transportation, education and workforce characteristics.

Participants will also learn to:

- Conduct spatial queries
- Download free shapefiles
- Create well designed maps

Mapping techniques transferable to all other communities. Exercises are designed for beginners. Intermediate Excel skills required.

Materials

- + Comprehensive workbook (75 pages), which includes the presentation, exercises and reference worksheets,
- + ArcGIS (ArcView 9.2) software 60-day trial CD set,
- + Thirty day free access to new 2005 Tiger/Line geography files (converted to shapefiles) which include streets, zip codes, school districts, voting districts, census tracts and many other useful geographies
- + Thirty day free access to our Analyzing Your Community: Local Demographic Analysis Online Workshop

What People Are Saying

State of Alaska - Department of Transportation - "This was truly an outstanding class!"

Municipality of Anchorage: "This was a very good "jump start" to my GIS education."

University of Alaska - Anchorage: "This was an excellent workshop."

Alaska Department of Education: "This was great! I am looking forward to incorporating our existing data into a mapping system."

Aviation and Space Education at NCASE

There is an amazing opportunity coming for you to learn more about Aviation and Space Education at NCASE, the National Conference on Aviation and Space Education! Follow this link to see all the presentations being offered at NCASE this year! <http://www.ncase.info/sessions.htm>
Yours truly will be one of the presenters!

Angie Slingsluff

Aviation and Space Education Coordinator

FAA Alaska Region AAL-30

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Flinn Scientific and Safety

Welcome back! Time to begin a new year of free safety training from Flinn Scientific! From August through May you will receive a different safety training topic every month. Each edition of Flinn's Science Department Safety Training Notes is designed to be shared with your colleagues at your monthly science department meetings. Your entire department and your students will benefit.

The purpose of the Science Department Safety Training Notes is to provide a forum for science teachers to review safety requirements and procedures, discuss their safety concerns, and set goals to improve safety. This program is provided as a free service thanks to the support of our customers. We are grateful to everyone who ordered from Flinn Scientific this past school year. Your support is helping improve science safety.

This month's training is entitled "Safety First Is No Accident." We will help you review safety responsibilities and lab activities and provide advice on how to use safety contracts and a safety checklist to ensure that safety procedures and policies are a top priority.

To help students understand their important role in meeting safety goals consider the award-winning, Flinn-produced student safety video/DVD entitled "Introduction to Laboratory Safety." For more information, please go to: <http://www.flinnsci.com/video.asp>

To print the August issue of Science Department Safety Training Notes please go to:

<http://www.flinnsci.com/Sections/Safety/Snotes/snotes.asp>
