

TESTA TAILINGS-

online journal of the Texas Earth Science Teachers Association

August 2, 2010

Editor: Alexia Bieniek

Vol 1 Ed1

Good Morning All!

Well, here it is-The Tailings coming to you from Cut and Shoot, Texas! We have been promising this online update for several years and now it has finally arrived!

After listening to several people at the TMRA workshops in Jewett and Corpus Christi AND the work Kathryn Barclay did on arranging a great Spring Conference for teachers featuring the Caverns of Sonora, it became abundantly clear that TESTA needed to reestablish a line of communication with its members. This is so especially true as many of you are walking in to teach Earth Science without a strong background in the content or in the case of those teaching the new Earth and Space Systems course which doesn't even have a book. This edition will offer a few workshops that are still available before school starts, some that are coming up and the TESTA strand at CAST. In order to make this a true means of communication, please email information to me at this lexyhbkg@gmail.com for the time being. Presently, TESTA news can be found by clicking the affiliates button on the STAT website or going to the University of Houston-Downtown's HUNSTEM site, <http://hunstem.uhd.edu>.

click on the TESTA symbol. HUNSTEM is linked to many other Earth Science organizations. I fully realize that most of the workshops offered in this edition are very close and for that please accept my apologies.

Wondering just who I am?

I am Alexia Bieniek. I was President of TESTA back in the '90's. I was the co-editor of the TALUS with Connie Fontenot until 2003. I taught 8th grade Earth Science and a variety of other middle school science classes for 34 years. I retired in 2003.

Now to the first edition of the TALINGS

Opportunities for Earth Science Teachers

I fully realize that most of the workshops offered in this edition are very close and for that please accept my apologies but try the sites anyway. Hopefully, there will still be room for late comers.

ELLISON MILES GEOTECHNICAL INSTITUTE

Presents

Teaching Earth and Space Science For High School

Instructor: Dr. Rebecca Dodge, Midwestern State University

\$ 200.00

August 9-13th, 2010

This class is designed for working science teachers who would like to teach the new ESS class in Fall 2010 with confidence and enthusiasm. Each teacher will receive extensive supplies and learn how to use them in hands-on activities. Included is the Pearson text and lab manual, with the ability download all activities from the Pearson website. Teachers will also receive five posters, labeled and boxed rock kits, labeled and boxed mineral sets with a test kit, and a Texas fossil kit. Also included are 11 Geological Society of America CDs (Exploring Cross Sections, Weathering and Erosion, Climate Change, Caves and Karst, Plate Tectonics, Tsunamis, Fossils, Deep Time, Earthquakes, Earth Cycles, Energy, Volcanoes)

For questions: Call Melanie Gamble 972-860-4269 mgamble@dcccd.edu

Geology on the Bus: Dinosaur Valley State Park

Learn to read the roadside landforms to understand the story of erosion and weathering on the way down to discover the fascinating geologic history of Dinosaur Valley State Park and its inhabitants. Collect your own fossils!

Cost: \$40 August 9, 2010 - [REGISTER](#)

Geology on the Bus: Ladonia Sulphur River

Join our stellar group of experienced geology presenters for a fun and educational trip to Ladonia Sulphur River! Meet at the Collin County Community College, 2800 E. Spring Spring Creek Parkway, Plano, Tx. 75074.

Cost: \$40 August 7, 2010 - [REGISTER](#)

Geology on the Bus: Ocean Dallas

This trip will emphasize the changing geographic arrangement of land and sea in what is now the Dallas-Fort Worth region (the "Metroplex") between 96 million years ago (MYA) and 86 MYA. Our tools will be the rocks we see and the order of rock layers through time. You will collect at several different stops: Invertebrates, perhaps a crab, a bit of fossil wood, probably shark teeth, and ????? SMU Paleontologist and faculty Dr. Diana Vineyard will be your guide!

Cost: \$40 August 13, 2010 - [REGISTER](#)

The EMGI group is developing an online workshop for specifically for the fledgling ESS course. It will be led by Dr. Rebecca Dodge. The course will include curriculum designed to fit the TEKS for that course as well as guest speakers. The course is targeted to go online in early fall.

Come learn about Meteorites in Houston!

[Meteorite 101](#) is a one-day class that covers the basics of meteorites and their identification. The workshop progresses through the history of meteorites, meteorite identification, a hands on lab, the 4 methods of meteorite recovery, geology of meteorites and asteroids. By the end of the workshop, attendees will know the hows and whys of meteorites. All attendees will receive a copy of "Rocks from Space" and a sample of a meteorite to take with them. Instructors for the workshop include

McCartney Taylor - Internationally known meteorite hunter and researcher.

Larry Lobofsky - Retired planetary scientist and instructor from the University of Arizona.

Phil Mani - Well known Geologist, Attourney, and Meteoriticist

Russ Finney - Meteorite Collector and Documentarist.

For more information about this course please visit our website, <http://meteorites101houston.eventbrite.com>. Our courses fill up quickly. In order to ensure that your space is reserved, we encourage you to register early. **Houston, TX -September 23, 2010** Register online by following the links above or by visiting our website: <http://meteorites101houston.eventbrite.com/> We are happy take your registration via phone. Dial 1-800-762-3057 and ask for Tami Blankenship to register today.

Picture Perfect Science Lesson: Using Picture Books to Guide Inquiry

This full day training is intended to help science educators in grades 3 – 5 combine literacy and science, using books to guide science content. Teachers will take part in interactive, engaging model lessons to be used in the classroom. Taken from *Picture Perfect Science Lessons: Using Picture Books to Guide Inquiry*, participants will go through three of the 5E lessons, take part in best practices for science teaching and learning, and learn four excellent teaching strategies

Lisa K. Felske

Science Specialist

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Basic Mapping & GIS 101

A one-day class that covers the basics of mapping and GIS. The workshop progresses through the use and functionality of free, open source GIS tools and programs, explains GIS concepts, and culminates with a map **you** will create in class. Attendees learn the concepts of data sets, map layers, area measurement, scale, and symbology. These concepts, along with the learned knowledge of GIS mapping basics, projections, and layers allow attendees to utilize GIS tools and make maps in the workplace with confidence. By the end of the workshop, attendees will know the hows and whys of cartography methods. More importantly, they will know how to use FREE GIS software to manipulate data layers and create maps. For more information about this course and our accreditations, please visit our website, www.LearningGIS.com.

EARTH SCIENCE WEBSITES

This website is a must for the upcoming ESS teachers.

The TxESS Revolution is a teacher workshop that has been ongoing for several years. <http://www.txessrevolution.org/>

General Earth Science <http://hunstem.uhd.edu>.

Additional websites

Please spread the word via your contacts; NASA is giving away DVDs with Journey to the Stars on them:

http://blogs.chron.com/sciguy/archives/2010/06/nasa_does_something_unquestionably_good.html

This makes a great teaching aid. NASA also has other materials to go with the DVD.

Units from NESTA website by Mark Francek which may be as old as 2008. Members of NESTA receive this information on a regular basis.

POWERPOINT (Charlie Lindgren) I've created a lesson where teams of students must make a PowerPoint for one of the time periods. Everything you need is there. <http://www.gatesscience.info/teamescience/geotimes.htm>

AGE OF THE EARTH, USGS, (Virginia Malone), This one page is a relatively simple explanation of the rock evidence we have for the age of the Earth. <http://pubs.usgs.gov/gip/geotime/age.html> THE GPS VISUALIZER, (Sean Ellison) An awesome find! "GPS Visualizer is a **free**, easy-to-use online utility that creates maps and profiles from GPS data (tracks and waypoints, including GPX files), street addresses, or simple coordinates. Use it to see where you've been, plan where you're going, or visualize geographic data (business locations, scientific observations, events, customers, real estate, geo tagged photos, etc.)." <http://www.gpsvisualizer.com/>

HYDROSPHERE

A GLOBAL MAP OF HUMAN IMPACTS TO MARINE ECOSYSTEMS, National Center for Ecological Analysis and Synthesis (Scout Report) The National Center for Ecological Analysis and Synthesis at the University of California, Santa Barbara decided to estimate and visualize the global impact humans are having on the ocean's ecosystems. Visitors to the site can view the map, learn about the methodology used to create the map, and also read about their datasets. Their findings were reported in Science magazine. As it stands, this map provides "critical information for evaluating where certain activities can continue with little effect on the oceans, where other activities might need to be stopped or moved to less sensitive areas, and where to focus efforts on protecting the last pristine areas." [\[KMG\]](#)

<http://www.nceas.ucsb.edu/GlobalMarine>

ATMOSPHERE

NOAA SUMMARY, NOAA (Zach Miller) Here is a good NOAA summary from their online magazine for "Hurricane Myths and Misconceptions" Scroll to the bottom of the page.

<http://www.magazine.noaa.gov/stories/mag205.htm>

SPACE

THE EIGHT PLANETS, Bill Amett, (Christina Salter) "This website is an overview of the history, mythology, and current scientific knowledge of the planets, moons and other objects in our solar system. Each page has my text and [NASA's](#) images, some have sounds and movies, most provide references to additional related information."

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

EARTH OBSERVATION FROM SPACE, (Nicole LaDue) The National Research Council has just published "Earth Observations from Space" about the satellites have revolutionized Earth studies. You can request a free copy and CD with pictures and animations by going to this website: <http://dels.nas.edu/basc/earthobservations/index.cgi>

TEACHING

MOSART, (John Russell) I know that the MOSART page is incredible for diagnosing misconceptions early on in the year. You can even organize it by topic. "This is one of the most common laments from educators. Your students may perform well on your assessment instruments, yet say things in class which leave you wondering if they really understand the underlying concepts. Or perhaps you're at the beginning of a unit and are unsure about what your students already know. Which concepts do they already grasp, and which will you have to address? If any of these doubts and questions sound familiar, then the MOSART project was designed to help you. The acronym MOSART stands for:

The project provides educators with multiple-choice tests that can be used to assess their students' understanding of this content.

<http://www.cfa.harvard.edu/smgphp/mosart/>

DECISION MATRIX, (Virginia Malone), Does your state have a standard involving decision making? Have students use a decision matrix. They put the choices they have on one axis of a table and the criteria they deem important on the other. The choice that fits the most criteria should be the best choice. You might start with something simple like deciding what tennis shoes or what science project to work on. For a decision matrix see.

<http://wetheteachers.com/viewfiles.php?fid=1143>

GENERAL

Glencoe on line High School Earth Science textbook has a variety of animations, assessments, and other activities for a high school audience.

<http://glencoe.mcgraw-hill.com/sites/0078695058/>

OIL AND GAS EXPLORATION AND PRODUCTION THROUGH TIME, (suggested by Cher Cunningham, Science Information and Education Office, USGS), The USGS has completed a map compilation showing historical oil and gas exploration in the United States. The map is available both as a static Portable Document Format (PDF) file and as an interactive, layered map using Geographic Information System (GIS) tools. The site includes links to important related data by using the USGS Internet Map Service or by importing the data into GIS software such as ArcGIS. An interesting video history over the last century is also available. <http://pubs.usgs.gov/dds/dds-069/dds-069-q/text/cover.htm>

ANIMATIONS

ATMOSPHERIC PRESSURE AND CAN/CAR CRUSH, (Herb Ritchie)

http://www.youtube.com/watch?v=E_hci9vrvfw

NEWTON'S THREE LAWS OF MOTION, (Steve Kluge)

I can suggest a couple of great You Tube videos to watch, illustrating Law #1 -- the Inertia Law. An object in motion will stay in motion unless influenced by an outside(unbalanced, net) force.

So watch a video of people expecting to open a door by pushing on its glass (expecting an opposite, resistive force), but the glass has been removed, so the person keeps going:

<http://www.youtube.com/watch?v=P2jTT9Z6n3k>

DEMONSTRATIONS

VIDEOS ON TEACHER TUBE, (Rod Benson) I have recently posted several Earth Science-related videos on the Teacher Tube web site. The videos, which show demonstrations and activities, are each about 3 minutes long. Here are the titles:

1. Latent Heat Captured on Video!
2. The ultimate Cloud Demo
3. Lake Nyos Demo
4. Convection I and II
5. Ocean Currents Activity
6. Salinity-Density Demo
7. What's the Recipe for a Cloud Lab
9. Can Crush Activity

To view the videos, go to www.teachertube.com and then enter "Rod Benson" into the search box. You will also find information about how to access student handouts, answer keys, etc.

HUMOR

Have you ever highlighted Lyndar Williams Physics Chanteuse songs? Especially check out Real Media movie clips Try HiTek girl to start. <http://www.scientainment.com/songs.html> (Harry A Mazurek)

Mark Francek

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Phone: (989) 774 7617 Fax: (989) 774-2907

TESTA ACTIVITIES AT CAST

TESTA has usually held the business meeting and the presentation of our awards at our luncheon during CAST. However, due to the cost of meals at the convention center, the board of directors has decided to try a Friday night dinner at Lucky's Pub which is near the conventions center. At this point we are dubbing that gathering as the TESTA TSUNAMI in hopes of a huge wave of new and old TESTA members meeting at Lucky's. The establishment can provide a menu with several meals that are 1/3-1/4 the cost of the meals being served at CAST. More information about Lucky's is covered at the end of the activities.

All of the affiliates have a strand at CAST. Here are the activities of the TESTA strand. Please consult the CAST program for final times. The days are correct but the time may change especially the workshops.

Thursday, November 11

Short Courses

Earth Forces 3 hrs 3-6

Workshops

Building an Academic Vocabulary in a Science Classroom
Water Rockets 10-11
Our Active Solar System and Beyond 3-4
Introduction to Tapestry of Time and Terrain

Friday, November 12

Short Courses

USGS: Maps a Tapestry of Time and Terrain

Workshops and Other TESTA functions

Math + Science= Success
Rock Cycle and Plate Tectonics You Can Eat 10-11
Ask a Geologist 1:30-2:30
ROCK RAFFLE 3-4
TESTA Tsunami 6 pm -?

Field Trips

Preparing for the Year of the Solar System
Lunar and Planetary Institute 8:30 departure

Galveston Island: Coastal Change and Current Hazards 8:30 departure

Saturday, November 13

Short Courses

Playing in the Mud and Inquiry Too! 6hrs 8-6

Workshops

Resources from American Association of Petroleum Geologists 10-11

Super Share-a-Thon
TESTA, TAEE, HISD 10-11

Field Trips

Houston Gem and Mineral Show 8-1

TESTA TSUNAMI-hoping to see a wave of old and new members at Lucky's

TESTA Dinner & Social @ Lucky's Pub in lieu of our traditional luncheon.

Friday November 12, 2010 from 6pm - ?

TESTA members are invited to join us for a casual evening dinner & social.

Lucky's Pub (www.luckyspub.com) is Houston's #1 Sports Bar and only 2 blocks from GRB. Lucky's Pub free shuttle bus service to and from CAST main hotels and GRB. Happy Hour also runs 4-7pm.

Lucky's Pub full dinner menu and bar are available (\$5.95 to \$18) and TESTA will be providing dessert to our members.

Private room space is limited, so please RSVP to reserve your spot with Lale Bilir, aytulip@aol.com Please mark subject line with TESTA RSVP.

As you can plainly see-I am a novice at setting up a newsletter. My excuse-well I just got a new computer equipped with Windows 7. So much for excuses! It has been great "talkin'" with you. Please send your comments and suggestions to me at lexyhbkgmail.com.

Til next time!

Lexy

It's our 2nd Annual Bamberger Baby Bat-A-Thon Fundraiser!

Your support is **needed** for the bats and all the other amazing creatures at the Bamberger Ranch Preserve. You can **help** during our 2nd Annual Bamberger Baby Bat-a-thon. It **works** like this:

- You **pledge** a monetary amount (such as 1/10 of a penny) for each "baby" bat. Send your pledge via **e-mail** to: selah@bambergeranch.org or download a PDF file posted on the Home Page of our website at www.bambergeranch.org
- Boston University researchers will **count** all the bats during the first week of August.
- They will **compare** that August number with the count they completed in early July and determine the difference – which can be inferred to be primarily baby bats.
- All participants will be **notified** via e-mail approximately Sept. 3, 2010 of the documented number of "baby" bats.
- **Send** in your donation (tax-deductible) based on what you pledged.
- The first 10 e-mail pledges **receive** an official Bamberger Ranch Preserve T-shirt when their donations are received. Pledge deadline is August 10, 2010.

HINTS about the possible number of baby bats: Researchers documented **40,000** total bats during their count on July 2, 2010, although most of us believe that because of sporadic flying behavior, this number was lower than what we believe is actually there. In August 2009, they estimated **44,407** baby bats were born in the Bamberger Chiroptorium. If there are 40,000 flying babies in August this year, your pledge of 1/10 of a penny per baby bat equates to a \$40 donation.

REMEMBER - ALL DONATIONS TO SELAH BAMBERGER RANCH PRESERVE ARE TAX-DEDUCTIBLE. All donations will be utilized for educational programs. Specifically, we would like to purchase 4 pieces of echolocation equipment that would help school children experience what it's like to be a bat (at \$300 for each unit). Using an example of potentially 50,000 baby bats this year, some possible donation levels could be:

- > 1/10 of a cent per baby = \$ 50
- > 1/5 of a cent per baby = \$100
- > 1/2 of a cent per baby = \$250
- > 1 cent per baby = \$500

If there are more babies this year, the donation amounts above would be higher. If there are fewer than 50,000 babies this year, the donation amounts above would be lower.

But Wait! There's More!

Like jelly beans in a jar, guess the **TOTAL** number of bats that will be counted by Boston University researchers in August, and the closest guess will **win** a private bat emergence for 12 people, personally hosted by **J. David Bamberger**. *You do not need to pledge a donation to win this challenge.*

For several summers, we have hosted bat biologists from Boston University who conduct population research on-site at the Ranch, in conjunction with research at other area bat caves. They come to Selah the 1st weekend of every month the bats are in residence (May-Sept) and set up high-tech infrared cameras that pick up the body heat of each individual bat. Mexican Free-tailed Bats populate many limestone caves in Texas and most colonies are maternal. Babies are fully weaned and able to fly just five weeks after birth, so emergences usually double in size in late July & early August. For more information about the Bamberger Chiroptorium, visit our website: <http://bambergeranch.org/news/bats.phtml>

Deadline to pledge: August 10, 2010. We will let you know of the results by September 3, 2010. **Pass this e-mail on to 5 of your battiest friends & support the Bamberger Baby Bats!**

Texas Earth Science Teachers Association
Membership Application

Your TESTA membership includes opportunities to attend conferences, field trips, and other Earth Science Educational functions. At the annual STAT conference, TESTA hosts field trips, Share-a-thons and the Rock Raffle. TESTA also offers a grant for teachers to pursue unique and original curriculum with their students.

NAME _____

ADDRESS _____

SCHOOL _____ GRADE _____

SCHOOL DISTRICT _____ ESC Region _____

Work phone _____ Other phone _____

Email _____

Memberships available

_____ TESTA \$10 _____ Corporate \$125

_____ Family \$18

_____ Student \$2 (Full Time, requires an instructor's signature) _____

School _____

I grant permission to Texas Earth Science Teachers Association to use my picture in educational publications and to print my name, address and phone number in the TESTA directory.

_____ Date _____

Signature

Printed Name

Make checks payable to **TESTA**

Send your checks to
Kathryn Barclay
10535 Long River Dr.
Sugar Land, Tx 77498