



Region 2 Science Implementation Newsletter

Standards-Based Review

This issue of the newsletter will reach you as many of our high schools search for new and better ways to review with students for the Georgia High School Graduation Test. It is our fervent hope that even as review strategies are devised and implemented, no one loses sight of the most important means of preparation: continued standards-based instruction every minute of every class for every student. With that on-going instructional foundation in place there is less need for cramming before the test. With that in mind, these review tips and strategies may give you ideas for more effective review. [Read more](#)

Informal Science Education Resources in a GPS Course

What is an informal science education resource? It is any organization that works to increase science literacy in a setting that extends beyond the walls of the classroom. Many institutions offer a vast array of programs that teachers and other educators can use to enhance learning that occurs in the science classroom. On any given day, hundreds of thousands of students across the nation extend their science learning using museums, science centers, aquaria, camps, state and national parks, nature centers, zoos and botanical gardens. [Read more](#)

The BIODIDAC Project

If you have ever wished you could pull up a diagram for a presentation, or for a diagram on a handout, lab, or quiz, this is the site you have been looking for.

[BIODIDAC](#) provides over 6000 images, including photographs, video, and diagrams of organisms from protists to humans. These images range from basic to very complex. Cell structures and tissues are especially well done. Created by biology teachers in Canada as a clearinghouse for biology teaching aids, these images may be downloaded and used free of charge. The creators of this resource felt that there is too little digital material that can be freely used for teaching. BIODIDAC aims to address this void.

Copying the material, modifying and adapting it to be appropriate for instruction, and distribution to students is permitted with the condition that this is noncommercial, that the supplier (BIODIDAC) of the material is acknowledged, and that its use is [registered](#).

(This information is taken from the BIODIDAC website.)

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Burke County Teachers Visit Baldwin

Teachers from Burke County recently visited Baldwin County High School to observe the inclusion models being utilized in their collaborative inclusion classes. Burke County teachers Brad Ferguson, Betty Pierce, Jada Todd, Steve Brackett, Amy Wheeler, and Johnny Castro traveled to Milledgeville to observe co-teaching at Baldwin in order to improve science achievement for their special needs students. Several years ago, Baldwin County High School principal Lyn Chandler and his staff recognized the need to concentrate their efforts on improving student achievement for the students with disabilities subgroup. Because Baldwin has a significant number of students who fit in this subgroup, they realized that any efforts to improve the educational experience for these students would ultimately have an immediate impact on meeting AYP (Adequate Yearly Progress). The administration at Baldwin has made a commitment to this process by providing collaborative planning time for these teachers, scheduling so that collaborative pairs work together within one subject area, providing support and guidance for developing standards-based lessons, and providing co-teaching training at the beginning of each school year. As a result, students assigned to these classes as their Least Restrictive Environment are achieving at higher levels and Baldwin has enjoyed significant gains in their high stakes test scores.

Thinking Stimulus - Try It, You Might Like It

Taliaferro County and Jefferson County science teachers are using “Thinking Maps” in their classrooms to stimulate and nurture thinking skills among students. Also, by using inquiry-based formative assessment in daily instruction, teachers are helping students overcome the fear often experienced in classroom participation. Teachers are using inquiry-based assessment as a “ticket-out-of-door” strategy. This technique utilizes a sequence of questions to lead students to understand the concepts embedded in the Georgia Performance Standards. This approach has led to more active engagement in inquiry and development of deeper understandings. When students perceive assessment as non-threatening, they see it as a fun and try to contribute to the learning environment.

AGI and AGIF Establish Award for Exemplary K-8 Science Teacher

The American Geological Institute (AGI) and the AGI Foundation have announced the creation of the Edward C. Roy, Jr. Award for Excellence in Earth Science Teaching. Given annually, this award recognizes one classroom teacher from kindergarten to eighth grade for his or her leadership and innovation in earth science education. The winner will receive a \$2,500 prize and an additional grant of \$1,000 to enable the recipient to attend an AGI member society conference. To be eligible for this year’s competition, applications must be postmarked by March 1, 2008. This award is named in honor of Dr. Edward C. Roy, Jr., who was a strong and dedicated supporter of earth science education. He served as Past President of AGI, chaired the AGI Education Advisory Committee, and received both the Ian Campbell Medal and the Heroy

Distinguished Service award. [Click here](#) to learn more about competition requirements, application procedures, and deadlines.

The American Geological Institute is a member of the Triangle Coalition and is a nonprofit federation of 44 geoscientific and professional associations that represents more than 120,000 geologists, geophysicists, and other earth scientists. Founded in 1948, AGI provides information services to geoscientists, serves as a voice of shared interests in the profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society's use of resources, resiliency to natural hazards, and interaction with the environment. More details are at <http://www.agiweb.org/>

[Motorola Innovation Generation Grants](#) **[\\$100,000 awards for K-12 STEM activities](#)**

In an effort to cultivate the skilled scientists and engineers needed to create tomorrow's breakthrough ideas, in 2008 the Motorola Foundation will provide \$4 million in Innovation Generation Grants to organizations that engage U.S. K-12 students and teachers in innovation, science, technology, engineering and math. Please click here for more details and how to apply: <http://www.motorola.com/giving>

Remember, FREE assistance with your grant writing is available at <http://education.ti.com/grants>.

[GNEP 2008 Physics Teachers Workshop in Idaho Falls, Idaho](#)

The purpose of this workshop is to increase teachers' content knowledge and familiarity with the concepts and benefits of nuclear energy and radiation and the path forward envisioned by the Global Nuclear Energy Partnership (GNEP). Experience has shown that by reaching out to teachers and responding to their questions, the most current and accurate information will be relayed to their students. Informed teachers and students, in turn, transfer this information to their families and members of the public, which gives them a better understanding of nuclear energy and allows them to be better informed when making decisions about and discussing applications of nuclear energy and topics such as GNEP. Only 40 registrations will be accepted for the July 2008 workshop.

Conference sessions include:

- Nationally recognized speakers
- Radiation and nuclear energy basics
- Thermodynamics
- Beneficial uses of nuclear science and technology
- Biological effects of radiation
- Hands-on labs
- Nuclear power fundamentals
- Reactor safety

- Nuclear fuel cycle
- Tour of a reactor and accelerator facilities
- Current research and development relating to renewable and alternative energy resources
- Understanding the Global Nuclear Energy Partnership (GNEP)

Estimated. Costs per participant	Pre-paid by Conference	Reimbursed to participant 2-4 weeks following conference	Participant Cost
Curriculum Material	Included in registration		
Hotel - All rooms will be booked by conference committee	July 15-20 paid by conference		Add'l nights @ standard gov't rate
Travel - Mileage reimbursement @ \$.485 per mile direct route mileage (limit is 1,500 driving miles) - Airfare must be commercial coach direct route. Cancellation policy: Reimbursements will not be paid for no-shows.		Participants are responsible for making their own travel arrangements. Airfare and/or mileage and per diem for meals 1st & last day travel @ standard gov't rate will be reimbursed	Personal items and lodging costs if driving
Meals during conference	Complimentary breakfast provided w/room, lunches & most dinners	Dinner 7/13 and possibly one add'l dinner - reimbursement will be @ standard gov't rate	
University Credits - 2 credits			Cost to be determined (optional)

Contacts:

Cheryl Burgess, (208) 334-1058, [Send E-mail](#)

[Click here to register](#)

REMINDER:

GSTA CONFERENCE

ATHENS, GEORGIA

FEBRUARY 14-16

REGISTER ONLINE AT <http://www.georgiascienceteacher.org>

REGION 2 CALENDAR OF EVENTS FEBRUARY

Date	Title	Sponsor	Location	For more information
2/7, 2/8	Heart of Georgia Regional Science Fair	HGRESA	Eastman, GA	elpeacock@gmail.com
2/13	GPS 8th GRADE Physical Science Framework Module 4 Training Light and Sound	First District ETTC	Pembroke	
2/14-16	GSTA Annual Conference	Georgia Science Teachers Assoc.	Athens	http://www.georgiascienceteacher.org
2/15	GPS QX5 Microscope Training	Heart of Georgia ETTC	Eastman	mjohnson@hgresa.org
2/20	GPS 8th GRADE Physical Science Framework Module 4 Training Light and Sound Show	MSC ETTC/DOE	Macon State College Macon	

2/22 8:30- 3-30	GPS 8th GRADE Physical Science Framework Module 4 Training Light and Sound Show	NSC ETTC/DOE	National Science Center Augusta	Susan Watkins, NSC ETTC watkinss@ettcns.org
2/23	TI Nspire Workshop	Texas Instruments	Martinez	Ned Colley Texas Instruments Educational Technology Consultant Phone: (770) 640-0476 Cell: (404) 435-9516
2/28	Differentiation Workshop -Dr. William Bender	East Georgia GLRS	Milledgeville (Baldwin Co. BOE)	Crystal Hattaway at 478-275-3666 EAST CENTRAL GLRS 1100 Edgewood Drive Dublin, GA 31021
2/29	GPS 8th GRADE Physical Science Framework Module 4 Training Light and Sound	Heart of Georgia ETTC	Eastman	mjohnson@hgresa.org
On- going	Professional Learning	CSRA RESA	Dearing	
3/5	United Streaming	Heart of Georgia ETTC	Eastman	jlee@hgresa.org

[WEBSITES TO SUPPORT GPS INSTRUCTION](#)

The following websites are loaded with materials, lesson plans, background information, and images that will be useful in preparation for teaching many of our science GPS at a variety of grade levels.

[ISTAT Digital Curriculum Guide](#)

Contains lessons in physical science, life science, and earth and space sciences for grade levels 6-8 and 9-12.

<http://www.ucmp.berkeley.edu/education/explorations/tours/Trex/index.html> What is the evolutionary basis of classification? This website will help answer that question as it correlates well with SB3c.

[Learning from the Fossil Record](#) This is a set of articles and classroom activities using paleontology to teach major concepts in science.

[Understanding Evolution](#)

This rich website helps you understand what evolution is, how it works, how it factors into your life, how research in evolutionary biology is performed, and how ideas in this area have changed over time.

[The Paleontology Portal](#) includes explorations of famous fossil assemblages, a searchable set of fossil images, and a tool allowing you to map the ages of rocks in your own state and view corresponding fossils.

[Explorations Through Time](#)

A series of interactive, web-based educational modules that address topics such as fossils, the history of life, biological evolution, the science of paleontology and the scientific process.

[Learning from the Fossil Record](#) This is a set of articles and classroom activities using paleontology to teach major concepts in science.

[Our Dynamic Earth](#) is a course developed for San Francisco Unified School District teachers, this site contains both content and lessons about the Earth as a dynamic system, composed of the lithosphere (land), hydrosphere (water), atmosphere (air), and biosphere (living things).

[Thinking maps](#) This web site provides examples of how thinking maps can be used to integrate thinking skills in science classrooms.

[Map the Mind](#) This is the [Designs For Thinking](#) web site which is a group of educational consultants specializing in thinking maps.

[How Stuff Works](#) Too cool! This site explains scientific phenomena (and other “stuff”) with descriptions and animations. Have you ever seen an atomic bomb explode or taken one apart?