

Fall 2007

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Camp Invention

In one room, students constructed radio telescopes; in another - taking a certain room in the house - they re-created a crime scene. Although school was out for CSRA children, Camp Invention was keeping their brains sharp. The weeklong camp based at the RPSEC provided 107 first through sixth-graders with activities that fostered creativity, teamwork and inventive-thinking skills.

Split up by age and grade level so that the curriculum adapts to their needs, the students rotated through five modules every day, grasping the concepts of core subjects such as math and science. Throughout the week at camp, students designed and built methods of transportation for futuristic travel, used forensic science to determine "whodunit" while investigating a crime scene, built three-dimensional structures with tape and cardboard, used critical thinking to solve problems, and took apart an old household item (such as a VCR or laptop) with hopes of inventing something new from the old. "They learned about the different parts of each appliance and how those parts work," camp director John Hutchens said. "Then they invented something new using the old parts."



This was the RPSEC's 4th year hosting Camp Invention.



Summer Library Programs

The Ruth Patrick Science Education Center and the Aiken-Bamberg-Barnwell-Edgefield Regional Library System partnered this summer to deliver hands-on animal programs to the public libraries in Johnston, Denmark, Bamberg, Blackville, Williston, North Augusta, Wagener, and Edgefield. Students of all ages had an opportunity to observe and interact with live animals including salamanders, frogs, toads, turtles, snakes, an American alligator, and a barred owl. A total of 728 participants attended these programs.



Infusing the Love of Science, Math and Technology!

DuPont Planetarium

2007 Public Show Schedule

August 28

Total Lunar Eclipse – Special Event
 Lunar Viewing 5:00-8:00 am
 “Dark Shadows” – 6:15 pm

September 7,8,21,22

7:00 & 8:00 pm – Voyager Encounters
September 8 – Early Bird Special
 4:00 & 5:00 pm – Voyager Encounters

October 5,6,19

7:00 & 8:00 pm – Blown Away:
 The Wild World of Weather

October 6 – Early Bird Special

4:00 & 5:00 pm – Blown Away:
 The Wild World of Weather

October 20 – SEED 10:00 am – 3:00 pm

November 2,3,16,17

7:00 & 8:00 pm – Mission to Mars
November 3 – Early Bird Special
 4:00 & 5:00 pm - Mission to Mars

December 7,8,19

7:00 & 8:00 pm – Tis the Season
December 1 – Early Bird Special
 4:00 & 5:00 pm – Tis the Season

December 21,22,26,28,29

6:00, 7:00, & 8:00 pm – Tis the Season

Ticket Pricing

General Shows:

Adults \$4.50, Seniors \$3.50, Students 4K-12 grade \$2.50

Early Bird Special

Adults \$3.50, Seniors \$2.50, Students 4k-12 grade \$1.50

Digistar Shows

Adults \$5.50, Seniors \$4.50, Students 4K-12 grade \$3.50

For More Information Visit:

<http://rpsec.usca.edu/planetarium/>

DuPont Planetarium Update

New planetarium brochures are now available! The brochure includes the schedule of public shows and special events from August 2007 through August 2008 along with descriptions of the 15 programs offered throughout the year at the planetarium. One of these is a new program, “To the Moon and Beyond,” which is being developed for delivery in May 2008 to help celebrate NASA’s 50 years of space exploration.



Public shows are normally presented during the first and third weekends of the month on Friday and Saturday evenings. Weather permitting, the RPSEC observatory is open after evening shows so that visitors can view celestial objects through the Bechtel Telescope with the aid of an amateur astronomer. Early Bird shows are presented at 4:00 and 5:00 p.m. on the first Saturday of each month. These early shows are cheaper and provide an opportunity to visit the planetarium during daylight.

Private shows can be arranged by calling 803-641-3769. We have done private shows for clubs, scouts, churches, businesses, and birthday parties, and we are happy to work with new groups who have special requests. During 2007, we were delighted to do a “show for two” in which Steve Prescott proposed to Darlene Tower. When she said, “Yes,” we helped them celebrate with a Digistar display of fireworks! Another unique show in 2007 included a demonstration of celestial navigation for a group of sailors. Two experienced sailors showed how to use a sextant to measure angles to bright stars and planets; they explained how those numbers and a set of tables could be used to determine latitude. All who participated in that program were thankful for the invention of the Global Position System (GPS)!

The planetarium staff hopes that each of you will visit us this year. Our goal is to inspire others to explore the majesty of the heavens!



Total Lunar Eclipse Early Morning on August 28, 2007

Plan to get up early on August 28 so you can watch a total eclipse of the Moon! The action will begin just before 5:00 a.m. when the Moon will pass into the dark shadow of the Earth, which is known as the umbra. Watch the Moon grow darker bit by bit until it is totally eclipsed just before 6:00 a.m. The Moon will be darkened until it sets at about 7:00 a.m., just a few minutes after the Sun rises.

You can watch the eclipse from any place that has a clear view of the western horizon, or you can join us at the RPSEC for viewing between 5:00 and 7:00 a.m. We will present “Dark Shadows,” our planetarium show about eclipses and phases of the Moon, at 6:15 a.m. Your reward for coming at that hour will be a free show! Write the eclipse on your calendar, and plan to observe this special event.

Student Programs



Student Programs for K-12 students at the RPSEC served a total of 25,405 people during the 2006-2007 school year. Of that total, 20,590 were K-12 students from 97 schools encompassing 13 counties in both South Carolina and Georgia. This is a significant increase over last year, when we served 18,394 students from 62 schools.

This year a triple group from DeKalb County, Georgia traveled more than 2 1/2 hours each way to spend their only field trip for the year at the RPSEC. Their fifth grade classes rotated through a series of programs including "CSI Solutions," "Circuit City," and "Journey into the Living Cell."

The top ten most popular of our 56 program offerings for 2006-2007 are listed below. The planetarium program "Blown Away: The Wild World of Weather" was by far the most well attended program of the year, serving 1,454 students.

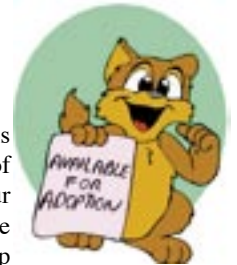
The deadline has passed for reservation requests for the 2007-2008 school year. Once again, we have received many more requests than we will be able to serve. Teachers' requests received after the June 15 deadline will be placed on a waiting list in the event of a cancellation. Please note that we are not able to accept reservation requests by telephone. We look forward to serving a record number of students this school year!



Top 10 Most Popular Programs	Visits 04-05	Visits 05-06	Visits 06-07
Blown Away: Weather	n/a	1,164	1,454
Animals with Backbones	932	840	1,285
Circuit City	n/a	442	1,157
Following the Drinking Gourd	1,035	768	1,066
The Graph Club	992	465	848
Magnets and Motions	946	669	837
Journey Into the Living Cell	496	914	741
In My Backyard	639	687	734
Hitchcock Woods EcoHike	537	394	701
Star Stories	n/a	551	643

NEW!

Adopt an Animal Program



The Ruth Patrick Science Education Center is looking for sponsors to help support the cost of feeding and caring for the animals used in our K-12 educational programs. An animal may be adopted by an individual, a business, or a group such as an elementary school class or a scout troop. The sponsors' names will be displayed on the animals' cages for one school year. Donations are tax deductible; sponsorship opportunities for 2007-2008 are listed below. For more information, please contact Deborah McMurtrie at DeborahMc@usca.edu or 803- 641-2834.

BIRDS	
Red-Tailed Hawk (<i>Buteo jamaicensis</i>) Non-releasable male, born 1992 (Windsor)	\$1,500
Barred Owl (<i>Strix varia</i>) Non-releasable female, born 1983 (Snippet)	\$1,250
Barred Owl (<i>Strix varia</i>) Non-releasable male, born 1998 (Spencer)	\$1,250
REPTILES: CROCODILIANS	
American Alligator (<i>Alligator mississippiensis</i>) female, born 2003 (Miss Sippi)	\$1,000
American Alligator (<i>Alligator mississippiensis</i>) female, born 2006 (Georgia)	\$750
American Alligator (<i>Alligator mississippiensis</i>) male, born 2006 (Louie)	\$750
REPTILES: SNAKES	
Eastern Kingsnake (<i>Lampropeltis getula getula</i>)	\$500
Northern Pine Snake (<i>Pituophis melanoleucus melanoleucus</i>)	\$500
Grey Rat Snake (<i>Elaphe obsoleta spiloides</i>)	\$500
Albino Yellow Rat Snake (<i>Elaphe obsoleta quadrivittata</i>)	\$500
Coastal Yellow Rat Snake (<i>Elaphe obsoleta quadrivittata</i>)	\$250
Corn Snake (<i>Elaphe guttata</i>)	\$250
REPTILES: TURTLES	
Box Turtle (<i>Terrapene carolina carolina</i>)	\$100
Snapping Turtle (<i>Chelydra serpentina</i>)	\$100
Painted Turtle (<i>Chrysemys picta picta</i>)	\$100
Chicken Turtle (<i>Deirochelys reticularia</i>)	\$100
Red-Eared Slider Turtle (<i>Trachemys scripta elegans</i>)	\$100
Yellow-Bellied Slider Turtle (<i>Trachemys scripta scripta</i>)	\$100
AMPHIBIANS	
Barking Tree Frog (<i>Hyla gratiosa</i>)	\$75
Green Tree Frog (<i>Hyla cinerea</i>)	\$75
Gray Tree Frog (<i>Hyla versicolora</i>)	\$75
Southern Leopard Frog (<i>Rana urticularia</i>)	\$75
Bull Frog (<i>Rana catesbeiana</i>)	\$75
Southern Toad (<i>Bufo terrestris</i>)	\$75
Spotted Salamander (<i>Ambystoma maculatum</i>)	\$50
Marbled Salamander (<i>Ambystoma opacum</i>)	\$50

Savannah River Regional Science and Engineering Fair

The Savannah River Regional Science and Engineering Fair is back! With the help of the Washington Savannah River Company (WSRC) the University of South Carolina Aiken (USCA), and the Ruth Patrick Science Education Center, the Savannah River Regional Science and Engineering Fair will take place at USCA on Saturday, March 15, 2008.

We would like to invite you to participate in the 2008 Savannah River Regional Science and Engineering Fair by registering on-line at <http://educationoutreach.srs.gov/> starting September 1st. The website is still under construction at this time but we anticipate it will be up and running on September 1st. The fair will be open to all 4th through 12th graders in CSRA public, private and home schools. The school registration deadline is October 31, 2007. All local science and engineering fairs will need to be completed and first place winning projects reported on -line by February 29, 2008.



Students may bring their projects to set-up at USCA on the afternoon of Friday, March 14, 2008, or the morning of Saturday, March 15, 2008. Project judging and the awards ceremony will follow. Lots of great prizes will be given out during the awards ceremony. We hope this will be a rewarding and fun event for all participating students.

A FREE teacher workshop will be offered to review fair rules, the registration process, to give guidance on how to conduct a local fair, and to convey what makes a good project. Workshops will be held at the Ruth Patrick Science Education Center in Room 117 on September 18, 2007, from 4:00 - 6:00 PM and a more detailed workshop will be offered on October 26 from 8:00-12:00. If you would like to register for the one of workshops, please complete the enclosed registration form.

If you have any questions or comments, please contact Bonnie Toole, 803-952-8720 or bonnie.toole@srs.gov, at WSRC Education Outreach Programs.

We look forward to seeing you at the 2008 Savannah River Regional Science and Engineering Fair!

**2008 Savannah River Regional Science and Engineering Fair
University of South Carolina Aiken / Ruth Patrick Science Education Center**

WORKSHOP REGISTRATION FORM

Name: _____

Address: _____

Home Phone: _____

School: _____ Fax #: _____

School Address: _____

School Phone: _____ Grade Level: _____

e-mail: _____ Alternate e-mail: _____

Workshop Date (check one): September 17 from 4:00-6:00 October 26 from 8:00-12:00

Return registration forms by September 11, 2007 to:

Bonnie Toole
Washington Savannah River Company
Building 730-1B
Aiken, SC 29808
Phone: 803-952-8720
Fax: 803-952-8264
E-mail: bonnie.toole@srs.gov

The Savannah River Regional Science and Engineering Fair is sponsored by:
Washington Savannah River Company
In partnership with
The University of South Carolina Aiken and The Ruth Patrick Science Education Center

Masters Degree in Educational Technology

Program Moving to On-line format



The Educational Technology program at the University of South Carolina Aiken (USCA) and the University of South Carolina (USC) Columbia is accepting applications for enrollment. There has been interest in moving the program to an on-line format and this process is well underway. For more information visit: <http://edtech.usca.edu/>.

The focus of the program is to develop capabilities essential to the effective design, evaluation, and delivery of technology-based instruction and training (e.g., software development, multimedia development, assistive technology modifications, web-based development, and distance learning) in order to (1) prepare educators to assume leadership roles in the integration of educational technology into the school curriculum, and (2) to provide graduate-level instructional opportunities for several populations (e.g., classroom teachers, corporate trainers, educational software developers) that need to acquire both technological competencies and understanding of sound instructional design principles and techniques.

Anyone interested in enrolling in this program should contact Karen Morris at 803-641-3489.

Foundational Core Courses (6 hours)

AEEM/EDRM 700 – Introduction to Research in Education

AEET/EDET 709 – Applications of Learning Principles

Design Courses (15 hours)

AEET/EDET 603 – Design and Development Tools I

AEET/EDET 703 – Design and Development Tools II

AEET/EDET 722 – Instructional Design and Assessment

AEET/EDET 755 – Design and Evaluation of Information Access and Delivery

AEET/EDET 793 – Advanced Instructional Design and Development

Technology Core Courses (12 hours)

AEET/EDET 650 – Internship in Educational Technology

AEET/EDET 735 – Technological Applications for Diverse Populations

AEET/EDET 746 – Management of Technology Resources

AEET/EDET 780 – Seminar in Educational Technology

Electives (3 hours chosen from the following courses)

AEET/EDET 652 – Design and Evaluation of Games and Simulations

AETE 731 – Instructional and Informational Applications of Technology or

EDTE 731 – Integration of Technology and Instruction

SLIS 706 – Introduction to Information Technologies

TSTM 790 – Advanced Study in Technology Support/Training Management

Graduates from the Master of Education in Educational Technology Program

The following students successfully completed the Master of Education in Educational Technology Degree Program and graduated either May or August 2007. Join us in congratulating this recent group of graduates.



Terri Arave	USC Columbia Student Health Services
Jessica Bacon	Warrenville Elementary School - Aiken County, SC
Laura Casdorff	North Augusta Middle School - Aiken County, SC
Marc Cota	East Aiken Elementary School - Aiken County, SC
Becky Hare	J. D. Lever Elementary School - Aiken County, SC
Stacy Horton	USC Columbia
Ashley Huggins	USC Columbia
Susan McCord	Gloverville Elementary School - Aiken County, SC
Monica Rook	Crayton Middle School - Richland One, Columbia, SC
Adrienne Ross	Carolina Care Plan Inc. - Columbia, SC
Lynette Shields	Columbia Middle School - Columbia County GA
Ashley Windley	Redcliffe Elementary School - Aiken County, SC

Fall Graduate Course

Management of Technology Resources

Credit: 3 hrs graduate credit

Instructor: Dr. Gary J. Senn

Course Number: AEET 746

Dates: Web based and Wednesday 8/29
Fall, 2007

Times: 5:00 - 7:40 p.m.

Course Fee: Regular Tuition

Location: B&E 238f

Course Description: The organization and administration of media programs in school buildings and districts, regional and state centers, and colleges and universities. Procedures, problems, and trends for an integrated instructional support system will be emphasized.

To Register: Call Karen Morris at 641-3489

FREE Teacher Resources and Visiting Scientists Available



The Traveling Science and Mathematics Demonstrations Program has over 300 science and math kits available for use in the classroom. Supplement your curriculum with nationally recognized and state adopted exemplary materials. Kits have been correlated to SC state standards. Many kits contain children's literature so that you can integrate your science and language arts lessons together.

In addition to these resources you can request a visiting **STRAND (Scientists with Traveling Resources and Neat Demonstrations)** volunteer for classroom presentations. For more information, please visit <http://rpsec.usca.edu/travelingscience/> or call us at 803-641-3683.

Washington Savannah River Company in partnership with the
Ruth Patrick Science Education Center
Proudly Sponsors the

2007-2008 South Carolina Regional Future City Competition

The mission of the National Engineers Week Future City Competition is to provide a fun and exciting educational engineering program for seventh and eighth grade students. This program combines a stimulating engineering challenge with a "hands-on" application as students present their vision of a city of the future.

This will be accomplished by:

- Fostering engineering skills such as teamwork, communication, and problem solving
- Providing interaction among students, teachers, and engineer mentors
- Informing the community about the multi-disciplines within the engineering profession
- Inspiring students to explore futuristic concepts and careers in engineering

The National Engineers Week Future City Competition requires:

- Problem-solving
- Teamwork
- Research and presentation skills
- Practical math and science applications
- Computer skills

The competition employs a team-based approach. All members of the team have an important role that is necessary for the completion of the project.

To register email Bonnie Toole at bonnie.toole@srs.gov

Competition Guidelines:

- Limited to the first 30 registered schools
- Teams consist of three students, a teacher and an engineering mentor
- Up to five teams from each school may participate in the regional competition. However, only one team from each school may be in the final round at the regional competition



Presentations

Senn, G. J., Smalley D. C. (2007). Using modified, analog scales to enhance student understanding of weight and mass. Presented at the Carolina Association of Planetarium Educators conference – Gastonia, NC 5/7/07.

Senn, G. J., & Smyth T. J. C. (2007). Transitioning traditional, face-to-face, technology classes to online format. Presented at the 17th annual International Conference on College Teaching and Learning – Jacksonville, FL 4/4/07

Smalley D. C., Senn, G. J., (2007). Marriage proposal under the dome. Conducted special presentation for Steve Prescott as he made a successful marriage proposal to his fiancé, Darlene Tower, 1/6/07.

Senn, G. J. Total lunar eclipse. Live television presentation with Mary Morrison, WJBF, 3/2/07.

Senn, G. J. Galaxy Gala and the Galaxy Gals. Live television presentation with Mary Morrison, WJBF, 11/28/06.

Senn, G. J. Galaxy Gala and the Galaxy Gals. Live television presentation with Bridgett Williams, WAGT, 11/16/06.





SCIENCE

SCIENCE EDUCATION ENRICHMENT DAY

AT USC AIKEN

AND THE RUTH PATRICK SCIENCE EDUCATION CENTER

SATURDAY
OCTOBER 20, 2007

10AM-3PM

SPONSORED BY:

RUTH PATRICK
SCIENCE EDUCATION
CENTER

UNIVERSITY OF SOUTH
CAROLINA AIKEN

AIKEN COUNTY PUBLIC
SCHOOLS



FREE ADMISSION

Ruth Patrick Science Education Center
USC Aiken - Box 3
471 University Parkway
Aiken, SC 29801
803- 641-3313 803-278-1967, Ext. 3313
RPSEC@usca.edu <http://rpsec.usca.edu/>

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U.S. Postage
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Permit #21



The University of South Carolina Aiken invites you to join us for an
"Out of this World"
Celestial Silent Auction
and
Galaxy Gala
Thursday, November 29, 2007
7:00 - 9:30 pm
Ruth Patrick Science Education Center

Silent Auction
Planetary Presentations
Live Entertainment

Business Casual
Heavy hors d'oeuvres
Open Bar

All proceeds to benefit the Ruth Patrick Science Education Center and the DuPont Planetarium
to infuse the love of learning science, mathematics & technology for over 70,000 minds per year

Galaxy Gala

Thursday, November 29, 2007

Join us for the Ruth Patrick Science Education Center's 2nd Annual Galaxy Gala! The "out of this world" event will feature live entertainment, heavy hors d'oeuvres, open bar, planetarium presentations and a special appearance by the Galaxy Gals.

Become a Galactic Guardian for 2008 by adopting a celestial object during the evening's silent auction. Guests will also have an opportunity to bid on various items, such as a private show for up to 45 guests at the DuPont planetarium or a catered dinner for four under the stars.

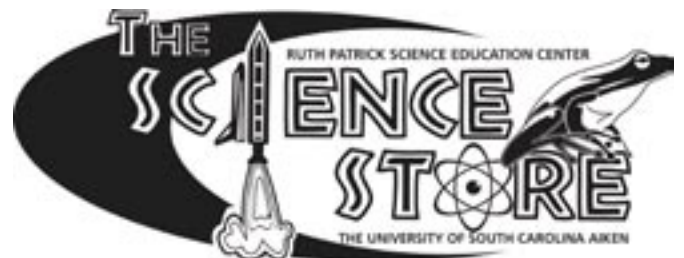
Dress is casual, with the option to come dressed as a planet or other heavenly body.

Proceeds benefit the Ruth Patrick Science Education Center and the DuPont Planetarium. Tickets are \$35 per person. For tickets or more information please contact Janice Weeks at 803-641-3769 or JaniceW@usca.edu.

Please visit the Galaxy Gala Website at <http://rpsec.usca.edu/Events/GalaxyGala/>

The CRSRA MSRC Welcomes Mrs. Linda Burton

Mrs. Linda Burton joined the CSRA Math and Science Regional Center staff as the new Office Manager. Linda is a graduate of USC Aiken with a Bachelor of Arts in Interdisciplinary Studies. Linda can be reached at lindab@usca.edu or by phone at 803-641-3594.



CHECK OUT OUR NEW
MERCHANDISE!

The Ruth Patrick Science Education Center Newsletter is a publication of the RPSEC for our patrons. The RPSEC encompasses the CSRA Mathematics and Science Regional Center (MSRC), Center of Excellence in Educational Technology (CEET), DuPont Planetarium, RPSEC Student Programs, Traveling Science and Mathematics Demonstrations Program (TSMDDP), and the Science and Technology Enrichment Program (STEP). If you have any information that would be beneficial to the audience of this newsletter, or if you would like to be added to the mailing list, please contact John Hutchens, Editor, at 803-641-3474 or via email to johnh@usca.edu. Deadline for submission in the next newsletter is October 22, 2007.