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This DuPont Planetarium presentation traces the history and development of many of the world’s most endearing holiday customs, all of which involve lighting up the winter season — from the burning Yule log, sparkling Christmas tree lights and candles in windows, to the lighting of luminarias in the American Southwest and the traditional ritual of the Hanukkah Menorah.

‘Tis the Season’ also recounts the historical religious and cultural rituals practiced during the time of winter solstice — not only Christian and Jewish, but also Celtic, Nordic, Roman, Irish, Mexican and Hopi. It also takes a look at some of our more light-hearted seasonal traditions: from gift-giving and kissing under the mistletoe, to songs about lords a-leaping and ladies dancing, and the custom of decking the halls with greenery and candles. St. Nicholas, Sinterklaas, Kris Kringle, Father Christmas, and Santa Claus all drop by as well.

Naturally, there is some astronomy in ‘Tis the Season’. Audiences learn a selection of Northern hemisphere winter constellations, and find out why we even have seasons, as we demonstrate the Sun’s path across the sky throughout the year, and the Earth’s tilt and orbit around the Sun. And of course, the program explores the possible astronomical explanations for a ‘Star over Bethlehem’.

**December 6, 13, 19, 20 at 7:00 & 8:00 PM**
**December 6 – Early Bird Special at 4:00 & 5:00 PM**
**December 23, 26, 27, 30 at 6:00, 7:00 & 8:00 PM**

**General Admission Ticket Price**
- Adults, $4.50; Seniors $3.50; Students $2.50 4K-12 grade;
- USCA Faculty/Staff and Students $1.00

**Early Bird Special Ticket Price**
- Adults, $3.50; Seniors $2.50; Students 4K-12 grade $1.50

To make a reservation inquire in the Science Store or call 803-641-3654.
2009 CSRA Science and Engineering Fair

Back by popular demand, Savannah River Nuclear Solutions LLC (SRNS), the University of South Carolina Aiken, and the Ruth Patrick Science Education Center Science are proud to be the sponsors of the 2009 CSRA Science and Engineering Fair. Schools in Aiken, Allendale, Barnwell, Edgefield, Bamberg, Saluda, McCormick and Hampton counties in South Carolina and Burke, Richmond, Columbia, Lincoln, Wilkes, Jefferson, Taliaferro, Warren, McDuffie, Emanuel, Jenkins and Glassock Counties in Georgia are invited to send their first place winning projects to the 2009 CSRA Regional Science and Engineering Fair that will be held at the University of South Carolina Aiken on March 14, 2009. The fair will be open to all 4th through 12th graders in CSRA public, private and home schools. For additional information contact Bonnie Maxwell at bonnie.maxwell@srs.gov or 803-952-8720.

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

For More Information Visit:
http://rpsec.usca.edu/planetarium/
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 2008-2009 are listed below.
For more information, please contact Deborah McMurtrie at DeborahMc@usca.edu or 803-641-2834.

<table>
<thead>
<tr>
<th>BIRDS</th>
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<tbody>
<tr>
<td>Barred Owl (Strix varia) Non-releasable male, born 1998 (Spencer)</td>
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<tr>
<th>REPTILES: CROCODILIANS</th>
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<tbody>
<tr>
<td>American Alligator (Alligator mississippiensis) female, born 2006 (Georgia)</td>
<td>$250</td>
</tr>
<tr>
<td>American Alligator (Alligator mississippiensis) male, born 2006 (Louie)</td>
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<tr>
<th>REPTILES: SNAKES</th>
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<tr>
<td>Eastern Kingsnake (Lampropeltis getula getula)</td>
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<tr>
<td>Northern Pine Snake (Pituophis melanoleucus melanoleucus)</td>
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<tr>
<td>Grey Rat Snake (Elaphe obsoleta spiloides)</td>
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<tr>
<td>Corn Snake (Elaphe guttata)</td>
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<thead>
<tr>
<th>REPTILES: TURTLES</th>
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<tr>
<td>Box Turtle (Terrapene carolina carolina)</td>
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<tr>
<td>Snapping Turtle (Chelydra serpentina)</td>
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<tr>
<td>Painted Turtle (Chrysemys picta picta)</td>
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<tr>
<td>Chicken Turtle (Deirochelys reticularia)</td>
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<tr>
<td>Red-Eared Slider Turtle (Trachemys scripta elegans)</td>
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<tr>
<td>Yellow-Bellied Slider Turtle (Trachemys scripta scripta)</td>
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<tr>
<th>AMPHIBIANS</th>
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<tr>
<td>Barking Tree Frog (Hyla gratiosa)</td>
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<tr>
<td>Green Tree Frog (Hyla cinerea)</td>
<td>$50</td>
</tr>
<tr>
<td>Gray Tree Frog (Hyla versicolora)</td>
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<tr>
<td>Southern Leopard Frog (Rana uralicaria)</td>
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</tr>
<tr>
<td>Southern Toad (Bufo terrestris)</td>
<td>$50</td>
</tr>
<tr>
<td>Spotted Salamander (Ambystoma maculatum)</td>
<td>$50</td>
</tr>
<tr>
<td>Tiger Salamander (Ambystoma tigrinum)</td>
<td>$50</td>
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CE-MIST Funding Begins

The new Center of Excellence in Middle-level Interdisciplinary Strategies for Teaching (CE-MIST) began funding in August 2008. The project was made possible through support of the South Carolina Commission on Higher Education under the auspices of the state EIA Teacher Education Centers of Excellence Grant Program.

CE-MIST will work with teachers and students at three schools in the CSRA: A.L. Corbett Middle School, Johnston-Edgefield-Trenton (JET) Middle School and Leavelle McCampbell Middle School. Activities will include professional development for teachers and activities for students.

Goals and Objectives:

Goal 1: Developing and modeling exemplary teacher training programs.
To address this goal, CE-MIST will develop and model programs that are: collaborative, field-based, use state-of-the-art technology and use proven strategies.

Goal 2: Providing hands-on, inquiry-based, research-supported programs.
CE-MIST will provide hands-on, inquiry-based, research-supported programs that incorporate innovative practices in teaching middle-level children with diverse backgrounds and learning styles from targeted low performing schools. Goal 2 is related to Goal 1 but shifts the focus from teacher to student. The middle-level students will have opportunity to engage in these activities at the RPSEC at the USCA, which will introduce them to a higher education institution and allow them to benefit from the state-of-the-art, RPSEC facility.

Goal 3: Developing an influential constituency for the Center
CE-MIST will develop an influential constituency by following the model exemplified by the RPSEC. A new group, the CE-MIST Advisory Council, will be created during this project. This group will be composed of individuals from each of the partner schools, USCA and key individuals with backgrounds in middle-level philosophy.

Goal 4: Achieving a position of leadership in the state
As CE-MIST develops and models exemplary teacher training programs and develops an influential constituency, there will be a natural progression to achieving a position of leadership in South Carolina.

Goal 5: Develop a detailed research agenda

For more information about CE-MIST, visit our website at http://rpsec.usca.edu/CE-MIST/
OWL NAMING CONTEST

The Ruth Patrick Science Education Center is pleased to announce the results of the Owl Naming Contest. The RPSEC staff chose the winning name from among 62 entries submitted by students in kindergarten through grade 12. The winners are:

First place: "RALEIGH"
(The owl was originally from Raleigh, North Carolina)
First place winners (tie):
Mrs. Brewer’s 4th grade class at Aiken Elementary School
Ms. Allen and Ms. Royster’s 4th grade class at Fairfax Elementary School

Second place: "OWLBERT EINSTEIN"
Second place winner:
Mrs. Coffey’s 6th grade classes at Aiken Middle School

Third place: "WA-HU-HU"
(the Cherokee word for owl)
Mrs. Carlisle’s 2nd grade class at North Harlem Elementary School

Honorable Mention: "AERIESTOTLE"
(Aristotle is in honor of one of the wisest men in history. The alternate spelling encompasses the word “aerie,” which is a large, high nest of a bird of prey)
Mrs. Hatfield’s 4th grade class at Alleluia Community School

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.

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/traveling-science/ or call us at 803-641-3683.
South Carolina and Georgia Schools Participate in the 2008-2009 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.

Participating Schools

A. L. Corbett Middle School
First Baptist Church School
Paul Knox Middle School
Aiken Christian Middle School
Green Sea Floyd's Middle School
Ridgeland Middle School
Aiken Middle School
Hillcrest Middle School
Ronald E. McNair Middle School
Bennettsville Middle School
Johnston-Edgefield-Trenton Middle
Southeast Middle School
Black Water Middle
Kennedy Middle School
Southwood Middle School
Blythewood Middle School
Langford Middle School
Tutt Middle School
Cainhoy Elementary/Middle
Midland Valley Prep
W. A. Perry Middle School
Cardinal Newman School
New Ellenton Middle School
Wild Flower Academy
Chapin Middle School
North Augusta Middle School
Woodmont Middle School
E. L. Wright Middle
Palmetto Middle School

The SC Regional Future City Competition is sponsored by the Ruth Patrick Science Education Center and Savannah River Site Education Outreach Programs. For more information visit http://futurecity.org/

Masters Degree in Educational Technology
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.

Foundational Core Courses (6 hours)
AERM/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
AEET/EDET 653 – Instructional and Informational Applications of Technology or EDTE 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

Anyone interested in enrolling in this program should contact Karen Morris at 803-641-3489.
The 23nd Annual (SEED) Science Education Enrichment Day offered the community over 60 science and mathematics related exhibits and activities hosted by business, industry and school organizations. Visitors had the chance to make their own paper, make tie-die shirts, build straw towers, make slime, learn about the weather, view their house from satellite images and much more. Students also had the chance to test their skills with SEED Trivia, completing math puzzles and exploring other thought-provoking exhibits. This year’s theme “Science Rocks!” was certainly brought to life by the many community volunteers that made this event so successful. Over 2650 people attended this year’s SEED.

2650 Attend SEED

Coming Spring Break
April 2009!

More information @
http://rpsec.usca.edu/
Looking for that perfect holiday gift? Visit the Science Store @ the Ruth Patrick Science Education Center.

Call 641-3313 for store hours.

The Camp Invention program is a weeklong summer experience in creativity led by local educators that provides educational enrichment through exciting, hands-on activities.

June 15-19, 2009 @ the RPSEC

The Camp Invention program is a weeklong summer experience in creativity led by local educators that provides educational enrichment through exciting, hands-on activities.

www.campinvention.org 800.968.4332

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Take Home Science

Make Your Own Lava Lamp

Here’s what you’ll need:
• Soda Bottle
• Vegetable Oil
• Water
• Food Coloring
• Alka-Seltzer (or any effervescent antacid)

Here’s what you’ll do:
1. Fill the bottle ¾ of the way with vegetable oil.
2. Use water to fill the bottle the remainder of the way, just below the bottle’s neck.
3. Place 10 drops of food coloring into the bottle. You can experiment by using two or three different food colorings.
4. Break the Alka-Seltzer into four pieces. Place one piece in after the other until all have been added.
5. Place the cap on the bottle. Now watch what happens—you have a lava lamp!

What’s happening:
This experiment proves that water and oil don’t mix. The carbon dioxide gas created when you dropped the pieces of Alka-Seltzer tables into the mixture causes the colored water blobs to push to the top through the oil.

© 2008 National Inventors Hall of Fame Foundation presents...

June 15-19, 2009 @ the RPSEC

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 (TSMDP), 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 March 6, 2009.