Celebrate the Holiday Season with the DuPont Planetarium!

Join us for a delightful show about the season that holds some of the warmest and brightest celebrations of the year. It is also the coldest and darkest of seasons. Tracing the development of many of the world’s endearing holiday customs, and how they light up the winter season, we portray everything from the burning Yule log and sparkling Christmas tree lights to the lighting of the Menorah and luminaries. The Season of Light planetarium show also recounts the historical religious and cultural customs practiced during the time of winter solstice, including Christian, Jewish, Celtic, Nordic, Roman, Egyptian and Hopi. We explore the possible astronomical explanations for a “Star over Bethlehem” including comets, meteors, novae, supernovae, and planetary conjunctions. The show also takes a look at some of our more light-hearted seasonal traditions: gift-giving, kissing under the mistletoe, songs about lords a-leaping and ladies dancing, the custom of deck ing the halls with greenery and candles, and Santa Claus. We also catch a few Northern winter constellations, and illustrate how the seasons are caused by the Earth’s tilt and orbit around the Sun.

Season of Light, also known as ‘Tis the Season, is one of our most popular, longest running shows. Many families come back year after year to rediscover the Christmas spirit through this holiday tradition. Make your reservations soon for public showings of Season of Light on any of the dates below:

- December 12, 14
  at 7:00 and 8:00 p.m.
- December 19, 21, 28
  at 6:00, 7:00 and 8:00 p.m.

You may also schedule a private showing of Season of Light (or any other planetarium program) by calling 641-3313.
**K-12 Student Programs**

The deadline has passed for reservation requests for the 2015-2016 school year. Once again, we received many more requests than we will be able to serve, and our schedule is full. We are unable to schedule additional programs at this time, but will be happy to place your request on a waiting list in the event of a cancellation. To download a reservation request form, please go to: http://rpsec.usca.edu/student/.

Our Student Programs website includes program descriptions, standards correlations, and related Traveling Science and Mathematics Kits that support and extend each lesson. These kits contain excellent pre- and post-visit activities and are available, free of charge, for checkout. To reserve a kit, go to http://rpsec.usca.edu/traveling science/ or call (803) 641-3683. You can even request that a scientist or engineer visit your classroom to teach a lesson!

Offerings for the 2016-2017 school year will be posted online in mid-April, 2016. The deadline to submit reservation request forms will be June 10, 2016.

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**Home School Mondays**

The Ruth Patrick Science Education Center is pleased to announce the offerings for Home School Mondays 2016. This year’s program offerings and reservation request form are available at http://rpsec.usca.edu/student/HomeSchool/HomeSchoolMondays.html/. Reservation request forms with pre-payment ($35) must be received by Friday, December 11, 2015 (Extended Deadline).

The children will be assigned to one of eight groups. Four of the groups will meet on the first Monday of each month (January 4, February 1, March 7, April 4, and May 2, 2016). The other four groups will attend on the second Monday of each month (January 11, February 8, March 14, April 11, and May 9, 2016).

Students should report to the RPSEC gallery at 1:00 pm each month on their designated days. Parents will need to sign their child in each time, and pick up the child’s nametag. We will then line the children up by group. The first class will begin at 1:15 pm and will last for one hour. After a restroom break, the children will be escorted to their second class.

Parents are welcome to stay but are not required to do so. It would be helpful, however, to have at least one parent volunteer accompany each of the groups. We hope to have one parent volunteer per 8 children. There is no charge for adults to participate in any of our Home School Mondays programs. Please note that children under the age of 4 are not permitted in the planetarium.

Please remember to sign your child out and return your child’s nametag when you pick them up in the RPSEC gallery at 3:30 pm. PLEASE NOTE: If someone other than the parent has permission to pick up and sign out your child, please notify us in advance.

Questions? E-mail us at RPSEC@usca.edu or call us at (803) 641-3313. We look forward to seeing you soon!
Border Bash Foundation Grant

Thanks to the generous support of the Border Bash Foundation, sixth grade students at Glenn Hills Middle School were able to visit the Ruth Patrick Science Education Center this fall. The Border Bash Discovery 360 project was designed to provide access to, and increase middle school students’ interest in science, technology, engineering and mathematics (STEM). This grant provided scholarships for 75 economically disadvantaged sixth grade students from Glenn Hills Middle School, a Title I school in Richmond Country, Georgia, to attend a series of field trip experiences at the RPSEC on the campus of the University of South Carolina Aiken in September of 2015. The project provided funding for transportation costs and all program fees. The students visited the DuPont Planetarium and participated in hands-on classroom programs that are aligned with academic standards and infused with exploration and discovery. The programs included To The Moon and Beyond, Kinesthetic Astronomy, and Under the Sea.

Wells Fargo Grant

The Wells Fargo STEM Success project was designed to provide access to, and increase middle school students’ interest in, science, technology, engineering, and mathematics (STEM). This grant will enable every student at Ridge Spring Monetta Middle School in grades 6, 7, and 8 to attend a series of field trip experiences at the Ruth Patrick Science Education Center (RPSEC) at the University of South Carolina Aiken during the 2015-2016 school year. The project will provide funding for transportation costs and scholarships for program fees. The students will visit the DuPont planetarium and participate in hands-on classroom programs that are aligned with academic standards and infused with exploration and discovery. The programs will include Blown Away: The Wild World of Weather, May the Force Be With You, and Animal Adaptation Stations for grade 6. Programs for grade 7 will include Journey into the Living Cell, Chemicals Matter, and Elements, Compounds, & Bonds. Students in grade 8 will attend Mission to Mars, Are You Dense? and Minerals, Ores, & Fossil Fuels. We are so grateful for the support of the Wells Fargo Foundation. Thank you!
**NEW 15-16 RPSEC Student Programs**

**Recycling Resources**  
Grade Levels: 1st & 3rd - Environmental Science  
Don’t trash our Earth! Students learn how much garbage we put in our landfills and how to help by reducing, reusing and recycling our waste! Students work together to build a landfill, collect data and construct graphs to help analyze the effects of our trash in the environment.

**Sun and Shadows**  
Grade Level: 1st - Earth Science  
Ever wondered why your shadow follows you everywhere? Students find out as we explore how shadows move with the Sun. Students conduct investigations that help them discover how the Sun appears to move, how shadows change over time, and how the angle at which light shines changes the brightness and spread of the light.

**Engineering Insects**  
Grade Levels: Kindergarten & 2nd - Life Science  
Students explore the amazing anatomy of insects and use the engineering design process to see how six-legged creatures have inspired inventions! Students learn about all the major body parts of insects and they will even test the “mouth parts” of different insects in fun feeding stations.

Teachers, STEP into our beautiful South Carolina forests with us!!

Select from a variety of exciting hands-on programs for your students that are environmentally focused, grade specific, inquiry-based and aligned to state standards. Programs include soil studies, wildlife adventures, plant explorations, pond investigations, and much more! A STEP visit includes 3 one-hour activities all addressing the chosen program topic: lab study, field study and a hike (unless otherwise stated) with a half hour for a picnic lunch. A typical schedule is 9:15 AM - 1 PM. Shorter visits can be accommodated. The Science and Technology Enrichment Program (STEP) is a cooperative effort between Savannah River Nuclear Solutions, Silver Bluff Audubon Center, and the Ruth Patrick Science Education Center. Two field trip locations for STEP include the Savannah River Site and the Silver Bluff Audubon Center. Both sites have indoor classrooms, beautiful forests with miles of trails, lovely ponds and a variety of resident wildlife. Please contact Susanne Kneece, STEP Coordinator, at SusanneK@usca.edu for more information.
Are you interested in integrating technology into your instruction? Would you like the flexibility of a high-quality, online program? If so, you should consider applying to the program for the M. Ed. in Educational Technology. The program is a joint program offered by USC Columbia and USC Aiken and it is entirely web-based (online). You can find out more about the program (which is a total of 36 hours) and courses by visiting the web site at: http://edtech.usca.edu

Students in the program are from all over the state of South Carolina and the region. Many are educators from K-12 and higher education, and others work in industry as instructional designers or related fields.

You may enroll in one or two courses prior to applying to the program if you wish to try them out. Also, by taking four specific courses, you can become qualified to teach in the SC Virtual School Program.

Application via Aiken campus is available at http://web.usca.edu/graduate-admissions/application/

Those students who enter the program through Aiken campus receive a laptop computer for use while in the program!

If you are interested in enrolling in the program or just wish for more information, contact Dr. Tom Smyth (smyth@usca.edu).
$75 level:
Galaxies and Nebulae:
44. Cat’s Eye Nebula, NGC 6543
45. Cat’s Paw, NGC 6914
46. Crab Nebula, M1
47. Dumbbell Nebula, M27
48. Flame Nebula, NGC 2024
49. Helix Nebula, NGC 7293
50. Horsehead Nebula B33, IC434
51. Horseshoe Nebula, M17
52. Lagoon Nebula, M8
53. Orion Nebula, M42
54. Owl Nebula, M97
55. Pillars of Creation (M16)
56. Ring Nebula, M57
57. Rosette Nebula, NGC 2237
58. Seagull Nebula, IC2177
59. Stellar Spire (M16)
60. Tarantula Nebula, NGC 2070
61. Trifid Nebula, M20
62. Andromeda Galaxy, M31
63. Black Eye Galaxy, M64
64. “Cigar” Galaxy, M82
65. Pinwheel Galaxy, M101
66. Sombrero Galaxy, M104
67. Sunflower Galaxy, M63
68. Tadpole Galaxy, UGC 10214
69. Whirlpool Galaxy, M51

$50 level:
Other Constellations:
70. Centaurus
71. Cetus the Sea Monster
72. Columba the Dove
73. Corona the Crown
74. Corvus the Crow
75. Delphinus the Dolphin
76. Lepus the Hare
77. Monoceros the Unicorn
78. Sagitta the Arrow

Thank You to our 2015 Galactic Guardians

Sun
Ms. Barbara Fenstermacher
Owl Nebula, M97
John & Deborah McMurtrie
Andromeda the Princess
Dr. Gary J. & Mrs. Senn
Sonnenberg
Aiken’s Women Club
Pillars of Creation (M16)
Dr. Joette and Mr. L.K. Sonnenberg
Cetus the Sea Monster
Adopted by Dr. David W. Hayes
Delphinus the Dolphin
Mr. Robert & Mrs. Nancy Harrington
Betelgeuse, Castor, Regulus and Sirius
Adopted by Mr. Roderick C. Lee & Ms. Katherine Mason
Thank You to Our 2015 Adopt an Animal Sponsors!

The Ruth Patrick Science Education Center is grateful for the support of the following 2015 Adopt an Animal sponsors:

American Alligator - ADOPTED by Mr. John Hutchens
American Alligator - ADOPTED by Ms. Barbara Fenstermacher
Barking Tree Frog - ADOPTED by Dr. Carol S. & Mr. Robert E. Botsch
Corn Snake - ADOPTED by Tristan Davis
Eastern Fence Lizard - ADOPTED by Drs. Carol S. & Mr. Robert E. Botsch
Eastern Screech Owl - ADOPTED by Mr. E.S. Sawyer
Eastern King Snake - ADOPTED by Mr. J. Rooney Floyd
Green Tree Frog - ADOPTED by Dr. Joette G. Sonnenberg
Red-Eared Slider - ADOPTED by Dr. Joette G. Sonnenberg
Southern Toad - ADOPTED by Mr. & Mrs. Robert Moore
Southern Toad - ADOPTED by G.B. Corporation
Snapping Turtle - ADOPTED by Mr. & Mrs. James Ferrell

Adopt an Animal Program 2016

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 individual, a business, or a group such as an elementary school class or a scout troop may adopt an animal. The sponsors’ names will be displayed on donor recognition kiosks at RPSEC, and they will be recognized in the Center’s publications and website as Friends of the RPSEC. Donations are tax deductible; sponsorship opportunities for January through December 2016 are listed below. For more information, please contact Lizzy Green at ElizabethGr@USCA.edu or (803) 641-3631.

**BIRDS: OWLS**
Raleigh, Barred Owl (Strix varia) Non-releasable male ................................................ $500
Lina, Eastern Screech Owl, brown phase (Megascops asio) Non-releasable female ............... $350
Charlotte, Eastern Screech Owl, brown phase (Megascops asio) Non-releasable female ............ $350

**REPTILES: CROCODILIANS**
Al, American Alligator (Alligator mississippiensis) male, hatched 2012 ........................................ $250
Holden, American Alligator (Alligator mississippiensis) male, hatched 2014 ................................. $250

**REPTILES: SNAKES**
George, Eastern Kingsnake (Lampropeltis getula getula) ................................................ $100
Betsy, Grey Rat Snake (Elaphe obsoleta spiloidea) ................................................................... $100
Corny, Corn Snake (Elaphe guttata) male .............................................................. $100
Casper, Albino Corn Snake (Elaphe guttata) ........................................................................ $100

**REPTILES: TURTLES**
Romeo, Box Turtle (Terrapene carolina Carolina) male ........................................................ $75
Fatty, Box Turtle (Terrapene carolina Carolina) female ....................................................... $75
Shelly, Box Turtle (Terrapene carolina Carolina) juvenile ...................................................... $75
Durtle, Snapping Turtle (Chelydra serpentina) male ............................................................... $75
Strut, Chicken Turtle (Deirochelys reticularia) ....................................................................... $75
Slim Jim, Red-Eared Slider Turtle (Trachemys scripta elegans) male ........................................ $75

**REPTILES: LIZARD**
Lizzy, Eastern Fence Lizard (Sceloporus undulates) ............................................................... $75

**AMPHIBIANS**
Emerald, Barking Tree Frog (Hyla gratiosa) ................................................................. $50
Striker, Barking Tree Frog (Hyla gratiosa) ........................................................................ $50
Kermit, Green Tree Frog (Hyla cinerea) .............................................................................. $50
Buddha, Southern Toad (Bufo terrestris) ............................................................................ $50
Jumper, Southern Toad (Bufo terrestris) .............................................................................. $50
Dottie, Spotted Salamander (Ambystoma maculatum) ....................................................... $50
Louie, Tiger Salamander (Ambystoma tigrinum) ............................................................... $50
Fireball, Red Salamander (Pseudotriton ruber) ................................................................. $50
Marley, Marbled Salamander (Ambystoma opacum) ......................................................... $50
The Ruth Patrick Science Education Center and the USCA Classified Employee Assembly are joining together to support the Annual Marine Corps Reserve Toys for Tots program.

USCA faculty, staff, and students as well as local residents are encouraged to bring in a new, unwrapped toy to the Ruth Patrick Science Education Center. The deadline is December 10th.

For Planetarium information call: 803-641-3654
From Augusta: 803-278-1967 ext. 3654
More information is available on our website: http://rpsec.usca.edu/Planetarium/

Become a Galactic Guardian for 2016
See page 6 for more information

How would you like to adopt a celestial object and be its Galactic Guardian for a year? There are a number of celestial objects that need a caring person, family or group to look out for their best interests over the next year. Additionally, you will have the opportunity to support programming at the Ruth Patrick Science Education Center with your tax-deductible donation. For more information, please call the main office at 803-641-3313 or email RPSEC@usca.edu.
30th Annual Science Education Enrichment Day (SEED)

The 30th Annual SEED 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, build straw towers, make slime, learn about the sweet side of chemistry, interact with the Smart Cat, drive robots and much more. Students also had the chance to test their skills with SEED trivia, completing math puzzles and exploring other thought-provoking exhibits. Over 3600 people attended this year’s event.

Thank you to our Platinum and Presenting Sponsors!

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 Scientists with Traveling Resources and Neat Demonstrations (STRAND) volunteer for classroom presentations.

For more information please visit http://rpsec.usca.edu/travelingscience/ or call us at 803-641-3683.
The mission of the National Engineers Week Future City Competition is to provide a fun and exciting educational engineering program for sixth, 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

<table>
<thead>
<tr>
<th>Aiken Area Home Educators</th>
<th>LBC Middle School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaufort Academy</td>
<td>Leavelle McCampbell Middle School</td>
</tr>
<tr>
<td>CREECS</td>
<td>Montessori Community School</td>
</tr>
<tr>
<td>Cyber Instructional Academy</td>
<td>New Ellenton Middle School</td>
</tr>
<tr>
<td>Edgewood Middle School</td>
<td>New Hope Christian School</td>
</tr>
<tr>
<td>Frances Mack Intermediate School</td>
<td>North Augusta Middle</td>
</tr>
<tr>
<td>Georgetown Middle School</td>
<td>Palmetto Middle School</td>
</tr>
<tr>
<td>Hilton Head Christian Academy</td>
<td>Paul Knox Middle School</td>
</tr>
<tr>
<td>Irmo Middle School</td>
<td>River Ridge Academy</td>
</tr>
<tr>
<td>Jackson Middle School</td>
<td>St. Mary on the Hill Catholic School</td>
</tr>
<tr>
<td>Jefferson Davis Academy</td>
<td>Summit Parkway Middle School</td>
</tr>
<tr>
<td>Kelly Mill Middle</td>
<td>Westview Middle School STEMS</td>
</tr>
<tr>
<td>Kennedy Middle School</td>
<td></td>
</tr>
</tbody>
</table>

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/

CSRA SCIENCE FAIR

Savannah River Nuclear Solutions, LLC, in partnership with the University of South Carolina Aiken (USCA) and the Ruth Patrick Science Education Center, once again proudly sponsors the Savannah River Regional Science and Engineering Fair. The 2016 event will take place at USCA on Saturday, March 12. First place winning projects by 4th through 12th graders from Central Savannah River Area (CSRA) public, private and home schools are invited to enter. Projects are judged for scientific reasoning, creative ability, thoroughness, technical skill and clarity. As in the past, judging will be performed by scientific, engineering and other technical professionals from SRS, USCA and the surrounding community. The science fair promotes students’ interest by providing public recognition of outstanding work and by giving students the opportunity to interact with community scientists. Lots of great prizes will be given during the awards ceremony. For additional information, contact Kim Mitchell, SRS Education Outreach Programs, at kimberly.mitchell@srs.gov or 803-952-8782.

Central Savannah River Area (CSRA) Territory:

- The Georgia counties of Columbia, Burke, Richmond, Lincoln, Wilkes, Jefferson, Taliaferro, Warren, McDuffie, and Glascock
- The South Carolina counties of Aiken, Allendale, Barnwell, Edgefield, Saluda, Hampton, Bamberg, and McCormick
Field trip days are always special for teachers and students. As a teacher, my favorite field trip was a visit to the Silver Bluff Audubon Sanctuary. It is a thrill to be going back now as an instructor. My teaching career has always offered a chance for growth, transitioning from high school history, to middle school gifted, and then the last ten years spent with fifth graders. I have grown with my students in knowledge and in understanding of the world around us.

My husband and I live in Aiken. I am a fool for garden catalogs, books and my sweet dogs. We enjoying going to the mountains during the summer and the beach during the winter. I am always up for a long walk and have enjoyed time on the Appalachian Trail, Inca Trail and a walk across northern England. I look forward to what lies around the next bend in this walk at the Ruth Patrick Science Education Center.

Lisa Pelfrey

My name is Lisa Pelfrey and I am a Student Program Specialist at the Ruth Patrick Science Education Center. As a Student Program Specialist I will be involved in teaching various hands-on, inquiry-based science programs. I will also be involved in presenting various shows in the Planetarium that focus primarily on astronomy and encourage the exploration of the night sky.

I am a graduate of Ohio State University and earned my Masters degree from Clemson University in Human Nutrition. I began my 25-year teaching career as a Clinical Dietitian, in both the Neonatal and Pediatric Units at MCG in Augusta. When my husband and I started our family, I decided to stay home and home school our 4 children with an emphasis in science and math. I then followed them into the private school setting as a teacher and for a short time as a principal. I have always had a love for learning, as well as a love for teaching children and look forward to infusing that same love for science, technology, and the universe into the children who come to the Ruth Patrick Science Education Center.

Daphne Granade

As a Student Program Specialist, I work with students who come on field trips to the Ruth Patrick Science Education Center. Although I've only been here a short time, the work with the students has been very rewarding as they complete the hands-on, inquiry based programs.

I received my Bachelor of Arts Degree in Elementary Education from Augusta College, and later, I added a Masters Degree in Instructional Technology. Over the course of my career, I've worked with elementary and middle school students - in both Aiken County and Richmond County - with the majority of my years in Richmond County. During the last 6 years of my public school career, I was an Instructional Coach. My job involved working with teachers to bring new strategies to the classroom - showing them how to use the strategies and then helping them implement those strategies in their classrooms.

My husband Danny and I have lived in Aiken for 13 years. We were both born and raised in Augusta, Georgia. We have 3 children, 3 grandchildren, and 2 granddawgs. We enjoy going to Beaufort SC where we shrimp and fish. My daughter and I go hiking in the mountains to find waterfalls that are off the beaten path. My other hobbies include reading and gardening.

I am thrilled to be a part of the Ruth Patrick Science Center staff.

Krista Lamar

Field trip days are always special for teachers and students. As a teacher, my favorite field trip was a visit to the Silver Bluff Audubon Sanctuary. It is a thrill to be going back now as an instructor. My teaching career has always offered a chance for growth, transitioning from high school history, to middle school gifted, and then the last ten years spent with fifth graders. I have grown with my students in knowledge and in understanding of the world around us.

My husband and I live in Aiken. I am a fool for garden catalogs, books and my sweet dogs. We enjoying going to the mountains during the summer and the beach during the winter. I am always up for a long walk and have enjoyed time on the Appalachian Trail, Incas Trail and a walk across northern England. I look forward to what lies around the next bend in this walk at the Ruth Patrick Science Education Center.
STEM Forward - Building High Impact Talent 2015-2016

Part I. Quarterly Sessions - Content Focus Areas

<table>
<thead>
<tr>
<th>Date</th>
<th>Grade Band</th>
<th>Standards Area of Emphasis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, September 15, 2015</td>
<td>K-2</td>
<td>Number Sense, Number Sense and Base Ten</td>
</tr>
<tr>
<td>Tuesday, October 27, 2015</td>
<td>K-2</td>
<td>Algebraic Thinking and Operations</td>
</tr>
<tr>
<td>Tuesday, January 12, 2016</td>
<td>K-2</td>
<td>Measurement and Data Analysis</td>
</tr>
<tr>
<td>Tuesday, March 8, 2016</td>
<td>K-2</td>
<td>Geometry</td>
</tr>
<tr>
<td>Tuesday, September 29, 2015</td>
<td>3-5</td>
<td>Number Sense and Base Ten, Fractions</td>
</tr>
<tr>
<td>Tuesday, November 10, 2015</td>
<td>3-5</td>
<td>Algebraic Thinking and Operations</td>
</tr>
<tr>
<td>Tuesday, January 26, 2016</td>
<td>3-5</td>
<td>Measurement and Data Analysis</td>
</tr>
<tr>
<td>Tuesday, March 22, 2016</td>
<td>3-5</td>
<td>Geometry</td>
</tr>
<tr>
<td>Tuesday, October 6, 2015</td>
<td>6-8</td>
<td>Ratios and Proportional Relationships</td>
</tr>
<tr>
<td>Tuesday, November 17, 2015</td>
<td>6-8</td>
<td>The Number System</td>
</tr>
<tr>
<td>Tuesday, February 9, 2016</td>
<td>6-8</td>
<td>Expressions, Equations and Inequalities</td>
</tr>
<tr>
<td>Tuesday, April 12, 2016</td>
<td>6-8</td>
<td>Functions</td>
</tr>
<tr>
<td>Tuesday, October 13, 2015</td>
<td>9-12</td>
<td>Data Analysis, Statistics, and Probability</td>
</tr>
<tr>
<td>Tuesday, December 8, 2015</td>
<td>9-12</td>
<td>Geometry</td>
</tr>
<tr>
<td>Tuesday, February 23, 2016</td>
<td>9-12</td>
<td>Measurement and Data Analysis</td>
</tr>
<tr>
<td>Tuesday, April 26, 2016</td>
<td>9-12</td>
<td>Geometry</td>
</tr>
</tbody>
</table>

STEM: Real World Applications of SC College and Career Ready Mathematics and Science Standards

Focus Areas Include: Science and Engineering Practices & The Engineering Design Process; Biomedical Engineering; Aeronautics/Aerospace Engineering – The Mathematics and Science of Flight; Satellites, GPS & Navigation; Civil Engineering - Bridges, Structures, Mathematics and Physics in Roller Coaster Design; Mechanical Engineering - Wind Turbines; Robotics Programming and Data Analysis, PLTW; Modeling & Interactive Technology Simulations and Applications, Handheld & Computer-Based Technology; TI 84 Plus & TI Nspire Graphing Calculator and iPad Applications, Geometer’s Sketchpad & Geogebra

Part II. STEM Symposium* - All teachers in the grant project will participate in this session.

<table>
<thead>
<tr>
<th>Date</th>
<th>Grade Band</th>
<th>Focus Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday, January 15, 2016</td>
<td>K-12</td>
<td>STEM Symposium</td>
</tr>
</tbody>
</table>

Part III. CNTA (Citizens for Nuclear Technology Awareness) Workshops - Teachers should choose from one of the following dates. There are a limited number of slots for each workshop, so teachers should designate their first and second choices.

<table>
<thead>
<tr>
<th>Date</th>
<th>Grade Band</th>
<th>Focus Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday, October 16, 2015</td>
<td>K-2 and 3-5</td>
<td>CNTA Workshop</td>
</tr>
<tr>
<td>Friday, March 4, 2016</td>
<td>6-8 and 9-12</td>
<td>CNTA Workshop</td>
</tr>
</tbody>
</table>

Part IV. STEM Industry Visits - Teachers should choose from one of the following dates.

<table>
<thead>
<tr>
<th>Date</th>
<th>Grade Band</th>
<th>Focus Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday, June 10, 2016</td>
<td>K-12</td>
<td>STEM Industry Visit</td>
</tr>
<tr>
<td>Friday, July 22, 2016</td>
<td>K-12</td>
<td>STEM Industry Visit</td>
</tr>
</tbody>
</table>

Part V. Summer Institutes - Teachers will attend their respective grade-level summer institute.

<table>
<thead>
<tr>
<th>Date</th>
<th>Grade Band</th>
<th>Focus Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 13 - 16, 2016</td>
<td>9-12</td>
<td>Monday - Thursday sessions will be held at USC Aiken.</td>
</tr>
<tr>
<td>June 20 - 23, 2016</td>
<td>K-2</td>
<td></td>
</tr>
<tr>
<td>July 11 - 14, 2016</td>
<td>3-5</td>
<td></td>
</tr>
<tr>
<td>July 25-28, 2016</td>
<td>6-8</td>
<td></td>
</tr>
</tbody>
</table>

Part VI. Friday STEM Education Day at ATC

<table>
<thead>
<tr>
<th>Date</th>
<th>Grade Band</th>
<th>Focus Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-Jun-16</td>
<td>K-12</td>
<td>Grade-level STEM Education Day will be held at Aiken Technical College (ATC).</td>
</tr>
<tr>
<td>24-Jun-16</td>
<td>K-2</td>
<td></td>
</tr>
<tr>
<td>15-Jul-16</td>
<td>3-5</td>
<td></td>
</tr>
<tr>
<td>29-Jul-16</td>
<td>6-8</td>
<td></td>
</tr>
</tbody>
</table>

* ACPS Teacher Workday

Information and Registration Available Online at:  
http://rpsec.usca.edu/ProfessionalLearning/
Camp ENGage - July 2016

Camp ENGage is all about empowering the next generation of engineers. This camp will be an immersion into engineering and design-based thinking for rising 7th graders from the CSRA. More than a science camp, more than summer fun, Camp ENGage will give students unprecedented access to educators and engineering professionals. They will be ENGaged in hands-on projects that will encourage further study in engineering.

- Students will engage in a problem-based curriculum where they apply principles of engineering design to solve challenges.
- Students will make site visits to learn first hand how engineering is a critical component of their everyday lives.
- Program will be designed to spark curiosity, encourage self-expression and foster teamwork and friendship, with challenges that set them all up for success, now and in the future.

The camp will run 9:00 a.m. to 5:00 p.m., Monday through Thursday. Each day will include an exciting and diverse schedule of Discovery Workshops, learning lab activities, design projects and field trips to local companies/project sites.

The camp lasts one week — the excitement a lifetime!

Sponsored by Savannah River Nuclear Solutions

Visit RPSEC.USCA.EDU/CampENGage for more information.
The Spirit of Ruth Patrick Award was presented to Amanda Burnside at the Aiken County School Board meeting in December. Amanda, a teacher at Paul Knox Middle School. Her ultimate goal as a science teacher is to excite students about the world of science and create a sense of wonder and discovery. The intent of her instruction is to spark curiosity in the minds of her students and hone skills to help her students become better scholars and problem solvers.

Since 2006 this prestigious award has been presented annually to a K-12 educator who has demonstrated a keen interest in mathematics and science and has been effective in providing meaningful learning for K-12 students. This award recognizes an educator in the CSRA who demonstrates a passion for teaching and infusing a love of science, technology, engineering and mathematics.

Jason Holt Named the Dr. Robert Alexander Outstanding Administrator of the Year

Jason Holt, Principal of Jackson STEM Middle School, received the Dr. Robert E. Alexander Outstanding Administrator of the Year Award at the December Aiken County Board of Education meeting. The award is named after the retired USCAiken Chancellor and is presented to a school administrator who promotes science, technology, engineering and mathematics education.

Jaon’s school is progressing through an extensive, schoolwide, and radically progressive STEM instructional program. Using programs supported by USCA and the Ruth Patrick Science Center, they have developed curriculum mapping that focuses on engaging students in the engineering design process. Their organically developed movement is allowing students of all levels to gain engagement and rigor into science, technology, engineering, and math related topics.

Looking for that perfect holiday gift?

Visit the Science Store @
the Ruth Patrick ScienceEducation Center.