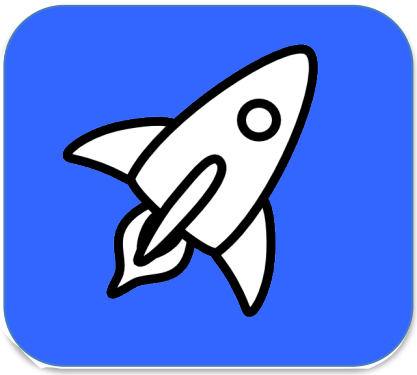
Ruth Patrick Science Education Center


SOUTH CAROLINA

2026-2027 Fieldtrip Directory

Standards Based Discovery and Planetarium Programs in Science, Technology, Engineering, Mathematics, and Social Studies

Registration Deadline is May 1, 2026

Ruth Patrick Science Education Center

471 University Parkway, Aiken, South Carolina 29801 803-641-3313 usca.edu/rpsec

Infusing the Love of Science, Technology, Engineering and Mathematics

Dear Educators,

The Ruth Patrick Science Education Center (RPSEC) is proud to serve as a dynamic partnership between the University of South Carolina Aiken, local industry, and public-school districts across the Central Savannah River Area. Together, we are committed to enriching Science, Technology, Engineering, and Mathematics (STEM) education for elementary, middle, and high school students throughout our region.

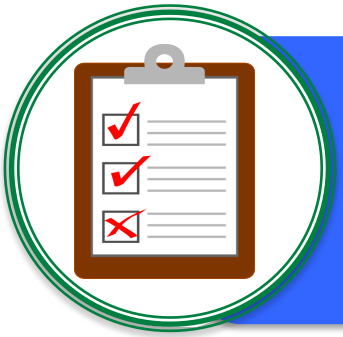
At RPSEC, learning comes alive. Our hands-on, inquiry-based programs invite students to explore, experiment, and discover—revealing the beauty, order, and power of science and mathematics in meaningful and engaging ways. Each visit is designed to spark curiosity, deepen understanding, and make learning both memorable and fun.

A field trip to the Ruth Patrick Science Education Center is more than a day away from the classroom—it's an unforgettable experience that inspires students to think critically, ask questions, and develop a lifelong love for STEM.

We invite you to bring your students to experience the excitement of STEM firsthand.

Visit usca.edu/rpsec/student/ to schedule your Ruth Patrick Science Education Center field trip today!

Kelly Schepens
Director of Student Programs



Planning Your Visit

REQUEST A FIELD TRIP

The Ruth Patrick Science Education Center offers more than 50 different hands-on, inquiry-based K-12 student programs that are aligned to state standards. Different programs are offered each month. A calendar of offerings, program descriptions, and reservation request forms can be found on our website at: usca.edu/rpsec/student/

Offerings for the upcoming school year are posted online in mid-February. The deadline to submit reservation requests is early May. Reservation requests for student programs are submitted online via the reservation link provided. Both the RPSEC and you will receive a copy of your request via e-mail after submission. Requests received after the deadline will be placed on a waiting list. **No reservations will be accepted by telephone, fax or mail.**

CONFIRM YOUR FIELD TRIP

All scheduling for the upcoming school year is done in the summer. You will be notified via e-mail that your request has been received. Once your visit has been scheduled, you will be e-mailed a confirmation contract letter. Confirmation contract letters **MUST** be accepted via e-mail reply to the RPSEC by the date specified, or your scheduled program(s) will be cancelled and filled from the waiting list.

RESCHEDULING A VISIT

Because we receive many more requests than we can serve, it is highly unlikely that we will be able to reschedule a visit unless we have a cancellation.

CANCELLATIONS

If you need to cancel a visit, we must receive written notification at least **FOUR** weeks in advance so we can fill it from our wait list. Written notification of a cancellation **MUST** be received at least 4 weeks prior to the reserved date or a **$25.00** cancellation fee **PER PROGRAM** will be assessed. Groups from that school will not be permitted to visit the RPSEC until the fee has been paid. *NOTE: **An additional $10.00 PER PROGRAM** will be assessed if your group misses your scheduled visit without contacting the RPSEC prior to the start time.

SCHEDULING RESTRICTIONS

- There is a **minimum** of 10 students to schedule any program.
- There is a **maximum** of 30 students per Discovery Program.
- There is a **maximum** of 60 students per visit for a Double Group (students rotate through 2 programs).
- There is a **maximum** of 90 students for a Triple Group (students rotate through 3 programs).
- Please **do not bring more than 90** students on the same day unless special arrangements have been made in advance and confirmed in writing.

SINGLE, DOUBLE, and TRIPLE GROUPS

- **Teachers bringing 10 to 30 students** may select one, two, or three programs per visit. A group of this size is considered a "Single Group" whether attending one or multiple programs.
- **Teachers bringing 31 to 60 students** must select at least two (2) programs for a "Double Program" visit. Students will rotate through two programs, with a visit of approximately 3 hours (includes a 30 minute lunch). Choose programs that are offered in the same month, only one of which may be a planetarium program.
- **Teachers bringing 61 to 90 students** should schedule three (3) programs for a "Triple Program" visit. Students will rotate through three programs, with a visit of approximately 4 hours (includes a 30 minute lunch).
- When choosing multiple programs, please select programs that are offered in the **same month**. Only one of the programs can be a planetarium program.
- EcoHikes in the woods and STEP classes at Audubon or SRS cannot be combined with RPSEC programs on the same day. However, teachers may request RPSEC programs and STEP visits during the same year.
- We may be able to accommodate larger groups in a shorter time frame if special arrangements are made in advance. See our frequently asked questions page for more information usca.edu/rpsec/StudentProgramsFAQ

PROGRAM REQUEST GUIDELINES

- Each class may request 2 visits per school year. You will be placed on our waitlist for a possible second visit. Please prioritize your program requests. We will schedule your programs, subject to availability, in the order in which you list them on your reservation request form.
- We recommend that one teacher make a reservation request for the entire grade level. We can accommodate up to 90 students per day (typically 9:15 AM – 1:15 PM) unless special arrangements are made in advance.
- Programs are 60 minutes each unless stated otherwise. Please allow for transition time between programs.
- Due to the anticipated volume of program requests, it is highly unlikely that late requests will be filled.

PROGRAM START TIMES

Programs begin at 9:15 AM, 10:30 AM, 12:00 noon, and 1:15 PM. Most groups eat lunch from 11:30 – 12:00. **Program start times can be adjusted in advance upon request.**

ARRIVALS and DEPARTURES

Please take a headcount before you leave your school. The group leader should report to the main office upon arrival with the total number of students and adults. Groups should enter through the double door entrance. Line up your students in one, two or three even groups in the gallery (**maximum of 30 students per group**). Please make checks payable to USCA, or let us know that you need to be invoiced. Please notify us as soon as possible if you will not be able to arrive at your assigned time or if you will need to leave early (803-641-3313).

LUNCH FACILITIES

Lunch facilities at the RPSEC can accommodate up to 90 students, but you must reserve the lunchroom, extra classrooms or picnic tables prior to your visit on a first come, first served basis. Participants should bring bag lunches and drinks. The RPSEC does not have food available. IMPORTANT: Double and triple groups should pre-divide their lunches to eat in two or three separate rooms.

CHAPERONES

Adult chaperones are welcome and encouraged to attend. Please note:

- One (1) adult per eight (8) students will be given free admission to planetarium programs. Any adults exceeding this ratio will be charged a special admission rate of **$3.75 per person**.
- All teachers, school staff, bus drivers and parents are included in the adult count. **Teachers are responsible for collecting the admission fees for any adults above the maximum free allotment prior to the visit.**
- There is no charge for adults attending discovery programs (non-planetarium). (Classroom space is limited. We recommend no more than 6 adults per group of 30 students.)
- To limit distractions to learning, children under the age of 4 are not permitted to attend any student programs at the RPSEC, including the planetarium.

- All visitors should turn off cell phones and audible personal electronic devices during their visit.

STUDENT PROGRAM FEES

Discovery Programs

Aiken County Public Schools…….. Prepaid by the district (non-planetarium)
All Other Schools……..... $3.75 per student, per program

Planetarium Programs

All Students ……..…..... $3.75 per student, per program
Adults: One adult per eight students is admitted free. Additional adults pay $3.75 each. (Adults = teachers, school staff, bus drivers and chaperones)

All Programs

Cancellation Fee (less than 4 weeks written notice), **PER PROGRAM**……$25.00
No-Show Fee, **PER PROGRAM** ……..…...$35.00

ACADEMIC STANDARDS

All student programs are aligned with South Carolina and Georgia academic standards. Each lesson is designed to actively engage students in hands-on, inquiry-based learning, and many of our programs are interdisciplinary. South Carolina and Georgia academic standards correlations are available on our website: usca.edu/rpsec/student/

ADA STATEMENT

Please indicate if you need any special services, assistance, or accommodations to participate in our programs by contacting us in advance at RPSEC@usca.edu or (803) 641-3313.

CONTACT INFORMATION

Ruth Patrick Science Education Center
University of South Carolina Aiken, 471 University Parkway, Box 3, Aiken, SC 29801
Telephone: 803-641-3313
Fax: 803-641-3615
E-mail: RPSEC@usca.edu

Elementary Level
SOUTH CAROLINA
Calendar of Program Offerings

Discovery and Planetarium Programs are NOT offered every month. Please see the calendar below along with program descriptions for MONTHLY offerings. When planning your visit, please select programs offered in the same month.

South Carolina Elementary Level Student Programs Calendar

	KINDERGARTEN	FIRST GRADE	SECOND GRADE	THIRD GRADE	FOURTH GRADE	FIFTH GRADE
AUGUST		*One World, One Sky Exploring Animal Senses Sound-sational Sun & Shadows	*Backyard Wilderness Staying Alive! What's the Matter		*Two Sm. Pcs. of Glass OR Cosmic Colors Do You See, What I See? Lunar Design Challenge Dodo Does Math	
SEPTEMBER		*One World, One Sky Exploring Animal Senses Sound-sational Sun & Shadows	*Backyard Wilderness Staying Alive! What's the Matter	**Ecohike in Hitchcock Woods (2 hour guided hike)	*Two Sm. Pcs. of Glass OR Cosmic Colors Do You See, What I See? Lunar Design Challenge Dodo Does Math	**Ecohike in Hitchcock Woods (2 hour guided hike)
OCTOBER		*One World, One Sky Exploring Animal Senses Sound-sational Sun & Shadows	*Backyard Wilderness Staying Alive! What's the Matter	**Ecohike in Hitchcock Woods (2 hour guided hike)	*Two Sm. Pcs. of Glass OR Cosmic colors Do You See, What I See? Lunar Design Challenge Dodo Does Math	**Ecohike in Hitchcock Woods (2 hour guided hike)
NOVEMBER		*One World, One Sky Exploring Animal Senses Sound-sational Sun & Shadows	*Backyard Wilderness Staying Alive! What's the Matter	*Magic Treehouse Motion Mechanics Multiplication Madness Owls: Wise Guise		
DECEMBER				*Magic Treehouse Motion Mechanics Multiplication Madness Owls: Wise Guise	*Two Sm. Pcs. of Glass OR Cosmic Colors Merry Measuring Planet Earth Rocks! Polygon Puzzle Under the Sea	*Defying Gravity OR Habitat Earth Ecosystem Energy Kinesthetic Astronomy Polygon Puzzle Marvelous Minerals
JANUARY	*In My Backyard OR *The Weather All Sorts of Sorting Recycling Resources Insect Inspectors			*Magic Treehouse Magnets and Motion Coding the Life Cycle Animal Superheroes	*Two Sm. Pcs. of Glass OR Cosmic Colors Merry Measuring Planet Earth Rocks! Polygon Puzzle Under the Sea	*Defying Gravity OR Habitat Earth Ecosystem Energy Kinesthetic Astronomy Polygon Puzzle Marvelous Minerals
FEBRUARY	*In My Backyard OR * The Weather All Sorts of Sorting Recycling Resources Insect Inspectors			*Magic Treehouse Magnets and Motion Coding the Life Cycle Animal Superheroes	*Two Sm. Pcs. of Glass OR Cosmic Colors Vertebrate Taxonomy Circuit City Dodo Does Math	*Defying Gravity OR Habitat Earth CSI: Solutions Variable Ventures Walk Across Solar System
MARCH	*In My Backyard OR *The Weather All Sorts of Sorting Push Me, Pull Me Turtle Talk	*One World, One Sky Animals with Backbones Make Shapes with Code Pattern Play	*Backyard Wilderness Math Mania! Dig In! Plantastic	*Magic Treehouse Magnets and Motion Coding the Life Cycle Animal Superheroes	*Two Sm. Pcs. of Glass OR Cosmic Colors Vertebrate Taxonomy Circuit City Dodo Does Math	*Defying Gravity OR Habitat Earth CSI: Solutions Variable Ventures Walk Across Solar System
APRIL	*In My Backyard OR *The Weather All Sorts of Sorting Push Me, Pull Me Turtle Talk	*One World, One Sky Animals with Backbones Make Shapes with Code Pattern Play	*Backyard Wilderness Math Mania! Dig In! Plantastic	**Ecohike in Hitchcock Woods (2 hour guided hike)	*Two Sm. Pcs. of Glass OR Cosmic Colors Vertebrate Taxonomy Circuit City Dodo Does Math	*Defying Gravity OR Habitat Earth CSI: Solutions Variable Ventures Walk Across Solar System
MAY	*In My Backyard OR *The Weather All Sorts of Sorting Push Me, Pull Me Turtle Talk	*One World, One Sky Animals with Backbones Make Shapes with Code Pattern Play	*Backyard Wilderness Math Mania! Dig In! Plantastic	**Ecohike in Hitchcock Woods (2 hour guided hike)		**Ecohike in Hitchcock Woods (2 hour guided hike)

* Indicates a Planetarium Program (you may only select ONE planetarium show per visit)** Indicates an Ecohike (these hikes are a stand alone program offered off-site at Hitchcock Woods)

Kindergarten

South Carolina Programs

MONTHLY PROGRAM PAIRINGS

JANUARY & FEBRUARY	MARCH, APRIL & MAY
*In My Backyard OR The Weather	*In My Backyard OR The Weather
All Sorts of Sorting	Turtle Talk
Insect Inspectors	Push Me, Pull Me
Recycling Resources	All Sorts of Sorting

PLANETARIUM PROGRAMS

IN MY BACKYARD Months offered: JANUARY, FEBRUARY, MARCH, APRIL & MAY

Join Fred Penner from TV's Nickelodeon as he explores his backyard searching for both things large and small. We will also learn about the reason for seasons, colors in the rainbow and even count together. This show is geared towards the youngest stargazers and encourages exploring your own backyard with fun songs and audience participation! Standards: K.PS3.1, K.NR.2.1

THE WEATHER Months offered: JANUARY, FEBRUARY, MARCH, APRIL & MAY

Join us on a journey to connect children to the weather around them and encourage them to use their senses to observe weather. Learn basic cloud types, their association with specific weather conditions, and the concept of weather forecasting. *The Weather* introduces basic terms used to describe weather conditions, and the instruments used to study and measure weather. Children follow a drop of water through the entire water cycle. Standards: K.ESS2.1, K.ESS2.D, K.ESS3.2

DISCOVERY PROGRAMS

ALL SORTS OF SORTING Months offered: JANUARY, FEBRUARY, MARCH, APRIL & MAY

Classify all sorts of objects by observing similar properties in this hands-on, discovery program. Students will describe and sort a variety of items using one or more attributes including size, shape, color, pattern, and texture. Standards: K.DPSR.1.1, K.DPSR.1.2, K.MGSR.1.1, K.MGSR.1.2, K.MGSR.2.1, K. PAFR.1.1

INSECT INSPECTORS Months offered: JANUARY & FEBRUARY

Students will learn about the major body parts of insects, observe live insects and test different insect "mouth parts" at feeding stations. Standards: K-LS1-1, LS1.C, K.DPSR.1.1

PUSH ME, PULL ME Months offered: MARCH, APRIL & MAY

Students will experiment with force and motion using toys including marble towers, gears, ramps and dominoes. They will collect, analyze, and interpret data from observations and measurements as they investigate motion, gravity and friction. Made possible with support from Generac. Standards: K-PS2-1, K-PS2-2, K.MGSR.2.2, K.DPSR.1.2, K.NR.2.1, K.NR.2.4

RECYCLING RESOURCES Months offered: JANUARY & FEBRUARY

Students will investigate ways to help reduce, reuse and recycle our waste. They will work together to deconstruct a model landfill, collect data and build graphs to analyze the effects of our trash in the environment! Standards: K-ESS3-3, K.NR.2.3, K.NR.3.1, K.DPSR1.1, K.DPSR.1.2

Kindergarten

South Carolina Programs

DISCOVERY PROGRAMS

TURTLE TALK Months offered: MARCH, APRIL & MAY

Let's talk turtles and learn all about the needs of these unique vertebrates. We will explore how land tortoises and aquatic turtles are alike and different and participate in hands-on turtle stations. Students will observe live box turtles, aquatic sliders and a snapping turtle. Standards: K-LS1-1, LS1.C, K-ESS3-1

1st First Grade

South Carolina Programs

MONTHLY PROGRAM PAIRINGS

AUGUST, SEPTEMBER, OCTOBER & NOVEMBER	MARCH, APRIL & MAY
*One World, One Sky	*One World, One Sky
Exploring Animal Senses	Animals with Backbones
Sound-sational	Make Shapes with Code
Sun & Shadows	Pattern Play

PLANETARIUM PROGRAMS

ONE WORLD, ONE SKY Months offered: AUGUST, SEPTEMBER, OCTOBER, NOVEMBER, MARCH, APRIL & MAY

Learn about the night sky with the cast from *Sesame Street*. Join Big Bird, Elmo and their friend from China, Hu Hu Zhu, on a journey to discover what it means to share one sky as we learn about the Big Dipper, the North Star, the Sun and the Moon. Standards: 1-ESS1-1, ESS1.A, 1-ESS1-2

DISCOVERY PROGRAMS

ANIMALS WITH BACKBONES Months offered: MARCH, APRIL & MAY

We will classify fish, amphibians, reptiles, birds, and mammals according to their physical characteristics. Students will observe live animals including salamanders, frogs, turtles, snakes, an alligator, and an owl. Student s will obtain information about parents and offspring behavior that help offspring survive. Standards: 1-LS1-1, 1-LS1-2, 1-LS3-1, ETS2.B

EXPLORING ANIMAL SENSES Months offered: AUGUST, SEPTEMBER, OCTOBER & NOVEMBER

What do our five senses tell you about the world around us? How do animals use their senses to survive? Let's find out as we explore all our senses with fun, cooperative sensory activities. Test your eyes with optical illusions, listen for mystery sounds, explore touch with unknown objects, sniff out every day smells. Standards: 1-LS1-1, LS1.A, LS1.D, ETS1.B

MAKE SHAPES WITH CODE Months offered: MARCH, APRIL & MAY

Math is part of our lives everywhere. Use math and coding skills to make your own maze and try to solve it. Start with a basic square and then see how many different shapes you can include in your maze designs! Standards: 1.MGSR.2.2, 1.CS.2.2, 1.CS.3.2

PATTERN PLAY Months offered: MARCH, APRIL & MAY

In this hands-on math class students will create, extend, and explain two- and three-part repeating patterns (AB, AAB, ABB, ABC) and growing patterns (ABC, ABBC, ABBBC, ABBBBC) using objects such as money and 2 dimensional shapes. Standards: 1.DPSR.1.1, 1.MGSR.1.4, 1.MGSR.2.2, 1.PAFR.2.2

SOUND-SATIONAL Months offered: AUGUST, SEPTEMBER, OCTOBER & NOVEMBER

Students will learn about sound waves, vibrations, and how volume and pitch may be manipulated. They will use teamwork to construct their own musical instruments and play a song. Made possible with support from Generac. Standards: 1.PS4-1, PS4.A, 1-PS4-4

First Grade

SC Programs Continued…

DISCOVERY PROGRAMS

SUN AND SHADOWS Months offered: AUGUST, SEPTEMBER, OCTOBER & NOVEMBER

Students will 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. Standards: 1-PS4-2, 1-PS4-3, 1-ESS1-1, 1-ESS1-2,

2nd Second Grade

South Carolina Programs

MONTHLY PROGRAM PAIRINGS

AUGUST, SEPTEMBER, OCTOBER & NOVEMBER	MARCH, APRIL & MAY
* Backyard Wilderness Staying Alive! What's the Matter?	* Backyard Wilderness Dig In! Math Mania! Plantastic

PLANETARIUM PROGRAMS

BACKYARD WILDERNESS Months offered: AUG., SEPT., OCT., NOV., MAR., APRIL & MAY

Backyard Wilderness will surprise and entertain viewers with the unexpected wonders of nature that are right under our noses - in our own backyards. Spanning a seasonal year around a suburban home, the film displays a stunning array of unique wildlife images and behavior - all captured by cameras mounted inside dens and nests, and moving along the forest floor and pond bottom, to reveal its inhabitants in rare and breathtaking intimacy. Standards: 2-LS2-2, LS2.A, 2-LS4-1, LS4.D, ESS3.C

DISCOVERY PROGRAMS

DIG IN! Months offered: MARCH, APRIL & MAY

Students will examine, compare, and sort Earth materials. Using magnifiers, they will investigate and describe properties of minerals, rocks, sediments and soil. Standards: 2-ESS1-1, 2-ESS2-1, ESS1.C, ESS2.A

MATH MANIA! Month offered: MARCH, APRIL & MAY

Students will review and reinforce the many math topics they have learned this school year like Time, Money, Measuring and Graphing Data, this class has a little bit of everything! Students will work in small groups completing challenges on theses math topics. Made possible with support from Generac. Standards: 2.MGSR.1.1, 2.MGSR.1.2, 2.MGSR.1.3

PLANTASTIC Months offered: MARCH, APRIL & MAY

Students will identify the functions of plant parts, observe live plants and assemble plant life cycle puzzles. They will enjoy time-lapse videos of plants in motion and discuss how plants and people are alike and different. They will sort and observe seeds and investigate methods of seed dispersal with seed dispersal stations. Standards: 2-LS2-1, LS2.A, 2-LS2-2, ETS1.B

STAYING ALIVE! Months offered: AUGUST, SEPTEMBER, OCTOBER & NOVEMBER

What adaptations help animals to stay alive in their habitat? Students will answer this question as we observe live animals including an owl, alligator, turtle, frog and salamander and learn all about animal adaptations by participating in hands-on stations. Standards: 2-LS4-1, 2-LS4-D

WHAT'S THE MATTER? Months offered: AUGUST, SEPTEMBER, OCTOBER & NOVEMBER

Students will investigate three states of matter: solid, liquid, and gas. They will observe, describe, and compare physical properties of solids and liquids. They will also explore mixtures and solutions. Made possible with support from Generac. Standards: 2-PS1-1, PS1.A, 2-PS1-2, 2-PS1-4, PS1.B, 2.PAFR.1.8

Third Grade

South Carolina Programs

MONTHLY PROGRAM PAIRINGS

SEPTEMBER & OCTOBER	NOVEMBER & DECEMBER	JANUARY, FEBRUARY & MARCH	APRIL & MAY
Ecohike in Hitchcock Woods	*Magic Treehouse Motion Mechanics Multiplication Madness Owls: Wise Guise	* Magic Treehouse Coding the Life Cycle Magnets & Motion Animal Superheroes	Ecohike in Hitchcock Woods

PLANETARIUM PROGRAMS

MAGIC TREEHOUSE: SPACE MISSION Months offered: NOV., DEC., JAN., FEB. & MAR.

Travel with brother-sister duo, Jack and Annie, in their Magic Tree House as they discover a note that asks them to answer six questions about space. With the help of an astronomer, the Internet, an astronaut, books, and the writer of the mysterious note, we go on a wonderful journey of adventure and learning. This beautifully produced show is based on the beloved Magic Treehouse book series. Standards: 3-PS2-1, 3-PS2-2, PS2.A

DISCOVERY PROGRAMS

CODE A LIFE CYCLE Months offered: JANUARY, FEBRUARY & MARCH

Explore the fundamentals of coding while also learning about life cycles! Students will learn about life cycles of different plants and animals through hands-on activities. Students will create their own life cycle animations using coding programs. Standards: 3-LS1-1, LS1.B, 3. AP.2.1, 3.AP.4.1, 3.AP4.2

MAGNETS AND MOTIONS Months offered: JANUARY, FEBRUARY & MARCH

Students will predict, sort, test and classify objects as magnetic or non-magnetic. Using toys and fun hands-on activities, students will investigate properties of magnetism and demonstrate how the poles of magnets attract and repel. Made possible with support from Generac. Standards: 3-PS2-3, 3-PS2.B, 3-PS2-4, 3-PS2.B, 3-ETS1.B

MOTION MECHANICS Months offered: NOVEMBER & DECEMBER

Explores the fascinating world of forces and motion. Students will investigate how objects move, what causes them to start moving, stop, or change direction, and how the strength of forces affects motion. Through hands-on experiments and collaborative activities, students will develop their scientific inquiry skills while discovering fundamental physics concepts. Standards: 3-PS2-1, PS2.A, PS2.B, 3-PS2-2

MULTIPLICATION MADNESS Months offered: NOVEMBER & DECEMBER

Join us in our computer classroom to dive into all thing's multiplication. This program introduces and extends students' multiplication skills through building arrays, easy to use strategies and multiplication games. Finally, students will test their new multiplication knowledge on the computer with flash cards with a techno twist! Made possible with support from Generac. Standards: Mathematics 3.PAFR.1.2, 3.PAFR.2.4

Third Grade

SC Programs Continued…

DISCOVERY PROGRAMS

OWLS: WISE GUISE Months offered: NOVEMBER & DECEMBER

Silent flight, a curved beak and sharp talons are some of the owl's guise that enables these birds to be successful predators. We will explore four owl's native to our area, interact with live owls and dissect owl pellets. Standards: 3-LS1-1, 3-LS3-1, LS3.A, 3-LS3-2, LS3.B

ANIMAL SUPERHEROES Months offered: JANUARY, FEBRUARY & MARCH:

Would you have what it takes to survive? Explore how organisms that are best adapted to their environment are more likely to survive and reproduce. Diverse lifecycles, inherited traits, environmental impacts all contribute to the ability to survive. Standards: 3-LS1-1, LS1.B, 3-LS2-1, 3-LS3-1, 3-LS3-2, 3-LS4-2, LS4.B, 3-LS4-3, LS4.C, LS2.C, LS4.D

OUTDOOR EXTENDED HOUR PROGRAM

ECOHIKE IN HITCHCOCK WOODS Months offered: SEPTEMBER, OCTOBER, APRIL & MAY

This is a two-hour, two-mile guided hike through Hitchcock Woods. Native plants will be identified, evidence of animal life will be examined, and forest communities will be compared. Standards: 3-LS1-1, LS1.B

4th Fourth Grade

South Carolina Programs

MONTHLY PROGRAM PAIRINGS

AUGUST, SEPTEMBER & OCTOBER	DECEMBER & JANUARY	FEBRUARY, MARCH & APRIL
*Two Small Pieces of Glass OR Cosmic Colors Do You See, What I See? Dodo Does Math Lunar Design Challenge	*Two Small Pieces of Glass OR Cosmic Colors Merry Measuring Planet Earth Rocks Under the Sea Polygon Puzzle	*Two Small Pieces of Glass OR Cosmic Colors Vertebrate Taxonomy Circuit City Dodo Does Math

PLANETARIUM PROGRAMS

TWO SMALL PIECES OF GLASS Months offered: AUG., SEPT., OCT., DEC., JAN., FEB., MAR. & APRIL

Join two young people at a star party as they observe planets and stars in a telescope. Learn how the telescope has changed from a modified spyglass using two small pieces of glass to the huge, space and land-based devices of today. Standards: 4-PS4-2, 4-PS4.B, 4-LS1-2, 4-LS1.D

COSMIC COLORS Months offered: AUG., SEPT., OCT., DEC., JAN., FEB., MAR. & APRIL

Cosmic Colors will take you on a wondrous journey across the electromagnetic spectrum. Discover the many reasons for color – like why the sky is blue and why Mars is red. Take a tour within a plant leaf and journey inside the human eye. Investigate x-rays at your doctor's office and at a monstrous black hole. Get ready for an amazing adventure under a rainbow of cosmic light! Standards: 4-PS4-2, PS4.B

DISCOVERY PROGRAMS

CIRCUIT CITY Months offered: FEBRUARY, MARCH & APRIL

Students will utilize batteries, light bulbs, wires, and motorized fans to construct multiple circuits. They will explore the difference between simple and series circuits along with the effect of switches. Made possible with support from Generac. Standards: 4-PS3-2, 4-PS3-4, PS3.A, PS3.B

DODO DOES MATH Months offered: FEBRUARY, MARCH & APRIL

Students will learn how to write real code while completing various math challenges including measurement, addition, subtraction, and computational thinking to help a dodo find her missing eggs! Made possible with support from Generac. Standards: 4.AP.1.1, 4.AP.2.2, 4.AP.4.1, 4.AP.4.2, 4.NSBT.4, 4.MDA.2

DO YOU SEE WHAT I SEE? Months offered: AUGUST, SEPTEMBER & OCTOBER

Students will explore ways that light can be reflected, refracted, diffracted and absorbed by various objects. They will also investigate how the eye converts light into images. Standards: 4-PS4-2, 4-PS4.B, 4-LS1-2, 4-LS1.D

4th

Fourth Grade

SC Programs Continued…

DISCOVERY PROGRAMS

LUNAR DESIGN CHALLENGE Months offered: AUGUST, SEPTEMBER & OCTOBER

Students will design, build, and test a Lunar Buggy to transport astronauts and cargo on the Moon. They will collect and analyze data, take measurements, and refine their models using the Engineering Design Process. Made possible with support from Generac. Standards: 4-PS3-1, PS3.A, 4-PS3-3, ETS1.A, ETS1.B, ETS2.B, 4.MGSR.2.4

MERRY MEASURING Months offered: DECEMBER & JANUARY

Students use Earth materials to investigate volume and mass. They will engage in problem solving activities such as estimating, measuring and ordering the masses of different minerals. We will explore the difference between mass and weight as well as learn how and why their weight changes if we leave Earth. Made possible with support from Generac. Standards: 4.NR.1.3, 4.MGSR.2.4

PLANET EARTH ROCKS Months offered: DECEMBER & JANUARY

Students will explore excellent specimens of igneous, sedimentary and metamorphic rocks. They will compare physical properties relating properties to formation processes as well as observe and classify fossils, sediments and products of earth resources. Standards: 4-ESS1-1, 4-ESS2-1

POLYGON PUZZLE Months offered: DECEMBER & JANUARY

Students will explore properties of Greek roots of polygons and polyhedrons. Using dynamic computer software called *Geometer's Sketch Pad* they will be challenged to solve a puzzle as they construct acute, obtuse, right, isosceles, equilateral, and scalene triangles. Made possible with support from Generac. Standards: Mathematics 4.MGSR.3.1, 4.MGSR.3.2

VERTEBRATE TAXONOMY Months offered: FEBRUARY, MARCH & APRIL

Students will participate in hands-on taxonomy activities as well as take a look inside the 5 groups of vertebrates using x-ray images. They will interact and observe live animals including salamanders, frogs/toads, turtles, snakes, an alligator, and an owl. Standards: 4-LS1-1, LS1.A, 4-LS1-2, LS1.D

UNDER THE SEA Months offered: DECEMBER & JANUARY

In this deep-sea mapping expedition, students use depth probes, look for patterns, make inferences and map the ocean floor using a large 3D Landforms Puzzle. They compare continental landforms with oceanic landforms, discuss constructive and destructive processes, and discover connections between landforms and plate tectonics. Standards: 4-ESS2-2, 4-ESS2.B, 4-ESS3-2

5th

Fifth Grade

South Carolina Programs

MONTHLY PROGRAM PAIRINGS

SEPTEMBER & OCTOBER	DECEMBER & JANUARY	FEBRUARY, MARCH & APRIL	MAY
Ecohike in Hitchcock Woods	*Defying Gravity OR Habitat Earth Ecosystem Energy Kinesthetic Astronomy Marvelous Minerals	*Defying Gravity OR Habitat Earth CSI: Solutions Variable Ventures Walk Across the Solar System	Ecohike in Hitchcock Woods

PLANETARIUM PROGRAMS

DEFYING GRAVITY: IT *IS* ROCKET SCIENCE Months offered: DEC., JAN., FEB., MAR.& APRIL

Join host Apollo Aurora and her science reporters as they explore the science behind rocket power, gravity on other planets, and even monstrous black holes! Robot experts Apple I-6-8-6 and EGR-1 will also lend a few circuits to explain the force that keeps us humans all grounded. Well, some of the time! Standards: 5-PS2-1, 5-ESS1-1, 5-ESS1-2, 5-ESS1.A, 5-ESS1.B

HABITAT EARTH Months offered: DECEMBER, JANUARY, FEBRUARY, MARCH & APRIL

Dive below the ocean's surface and travel beneath the forest floor to explore how living organisms are interconnected to support life forms both large and small. From the tiniest microbe to the tallest tree, *Habitat Earth* utilizes stunning images to show students how the biological world is carefully intersected with human and ecological networks.
Standards: 5-PS3-1, PS3.D, LS1.C, LS2.A

DISCOVERY PROGRAMS

CSI: SOLUTIONS Months offered: FEBRUARY, MARCH & APRIL

Scotty's dog is missing! Students use chromatography and sifting to separate mixtures; use indicators to make solutions and identify a mystery substance; and examine hair and fiber samples with microscopes in a simulated crime scene investigation. Made possible with support from Generac. Standards: 5-PS1-3, PS1.A, ETS2.A, 5-PS1-4, PS1.B

ECOSYSTEM ENERGY Months offered: DECEMBER & JANUARY

What makes a healthy ecosystem? What do plants and animals need to survive and thrive? Students will answer these questions and more as they learn how everything has a connection as energy flows through their ecosystem. Standards: 5-LS1-1, LS1.C, 5-LS2-1, LS2.A

KINESTHETIC ASTRONOMY Months offered: DECEMBER & JANUARY

Students get a feel for the scale of the universe as they sort celestial objects; then they model the Earth, Moon and Sun. They will discover why stars appear to move across the sky each day/night, why we see different stars during the year and how Earth's tilt causes seasons. Standards: 5-ESS1-1, 5-ESS1.A, 5-ESS1-2, 5-ESS1.B

MARVELOUS MINERALS Months offered: DECEMBER & JANUARY

Working together in small groups, students handle mineral specimens such as malachite, amethyst, mica, pyrite and copper. They learn to identify common minerals on the basis of their properties using a field guide and minerals identification key. Standards: 5-PS1-3, PS1.

5th

Fifth Grade

SC Programs Continued…

DISCOVERY PROGRAMS

WALK ACROSS THE SOLAR SYSTEM Months offered: FEBRUARY, MARCH & APRIL

Students learn about the planets and the size of the solar system as they create a model of the solar system using a scale of 1 inch = 100,00 miles. This requires walking outside for about a mile, so **please wear appropriate shoes**! Standards: 5-ESS1-1, 5-ESS1.A

VARIABLE VENTURES Months offered: FEBRUARY, MARCH & APRIL

Students identify different types of mixtures and work in collaborative teams to make various solutions. They manipulate variables to change the rate of dissolving. Made possible with support from Generac. Standards: ETS2.A, 5-PS1-4

OUTDOOR EXTENDED HOUR PROGRAM

ECOHIKE IN HITCHCOCK WOODS Months offered: SEPTEMBER, OCTOBER, APRIL & MAY

This is a two-hour, two-mile guided hike through Hitchcock Woods. Native plants will be identified, evidence of animal life will be examined, and forest communities will be compared. Standards: 5-LS1-1, LS1-C, 5-LS2-1

Upper Level
SOUTH CAROLINA
Calendar of Program Offerings

Discovery and Planetarium Programs are NOT offered every month. Please see the calendar below along with program descriptions for MONTHLY offerings. When planning your visit, please select programs offered in the same month.

South Carolina Upper Level Student Programs Calendar

	SIXTH GRADE	SEVENTH GRADE	EIGHTH GRADE	HIGH SCHOOL
AUGUST	*Seven Wonders OR Cosmic Colors OR Grossology and You Energy Transformations Mars Math Expedition Weather and Climate		*Engineering the ISS Force and Motion Animal Adaptation Lunar Design Challenge	
SEPTEMBER	*Seven Wonders OR Cosmic Colors OR Grossology and You Energy Transformations Mars Math Expedition Weather and Climate	**Ecohike in Hitchcock Woods (2 hour guided hike)	*Engineering the ISS Force and Motion Animal Adaptation Lunar Design Challenge	**Ecohike in Hitchcock Woods (2 hour guided hike)
OCTOBER	*Seven Wonders OR Cosmic Colors OR Grossology and You Energy Transformations Mars Math Expedition Weather and Climate	*Habitat Earth Center of the Atom Coral Reef Rescue Meet the Elements Modeling Atoms	*Engineering the ISS Force and Motion Animal Adaptation Lunar Design Challenge	*Ancient Sky Lore OR Sunstruck OR Cosmic Colors Center of the Atom Modeling Atoms OR Radiation All Around Us Probing Periodic Table
NOVEMBER		*Habitat Earth Center of the Atom Coral Reef Rescue Meet the Elements Modeling Atoms		*Ancient Sky Lore OR Sunstruck OR Cosmic Colors Center of the Atom Modeling Atoms OR Radiation All Around Us Probing Periodic Table
DECEMBER	*Seven Wonders OR Cosmic Colors OR Grossology and You Hiker Rockin' and Rollin' Seafloor Surveyors		* Engineering the ISS Kinesthetic Astronomy Lunar Design Challenge Rover Rescue	
JANUARY	*Seven Wonders OR Cosmic Colors OR Grossology and You Hiker Rockin' and Rollin' Seafloor Surveyors	*Habitat Earth Are You Dense? Changes Matter Ravenous Raptors Modeling Atoms	*Cosmic Colors Kinesthetic Astronomy Lunar Design Challenge Rover Rescue	*Ancient Sky Lore OR Sunstruck OR Cosmic Colors Center of the Atom Modeling Atoms OR Radiation All Around Us Lunar Design Challenge
FEBRUARY		* Habitat Earth Are You Dense? Changes Matter Ravenous Raptors Modeling Atoms		*Ancient Sky Lore OR Sunstruck OR Cosmic Colors Center of the Atom Modeling Atoms OR Radiation All Around Us Lunar Design Challenge
MARCH				
APRIL		**Ecohike in Hitchcock Woods (2 hour guided hike)		**Ecohike in Hitchcock Woods (2 hour guided hike)
MAY		**Ecohike in Hitchcock Woods (2 hour guided hike)		**Ecohike in Hitchcock Woods (2 hour guided hike)

* Indicates a Planetarium Program (you may only select ONE planetarium show per visit) ** Indicates an Ecohike (these hikes are a stand alone program offered off-site at Hitchcock Woods)

6th Sixth Grade

South Carolina Programs

MONTHLY PROGRAM PAIRINGS

AUGUST, SEPTEMBER & OCTOBER	DECEMBER & JANUARY
*Cosmic Colors OR *Seven Wonders	*Cosmic Colors OR *Seven Wonders
OR *Grossology and You	OR *Grossology and You
Energy Transformations	Hiker
Mars Math Expedition	Rockin' and Rollin'
Weather and Climate	Seafloor Surveyors

PLANETARIUM PROGRAMS

COSMIC COLORS Months offered: AUGUST, SEPTEMBER, OCTOBER, DECEMBER & JANUARY

Cosmic Colors will take you on a wondrous journey across the electromagnetic spectrum. Discover the many reasons for color – like why the sky is blue and why Mars is red. Take a tour within a plant leaf and journey inside the human eye. Investigate x-rays at your doctor's office and at a monstrous black hole. Get ready for an amazing adventure under a rainbow of cosmic light! Standards: 6-PS4-2, PS4.B

GROSSOLOGY AND YOU Months offered: AUGUST, SEPTEMBER, OCTOBER, DECEMBER & JANUARY

Join Noreen Neuron, host of the "Personal Universe" game show, as she leads us through a competition to decide which body system is the best and brightest. Will it be Scabby (the immune system), Boogie (the respiratory system) or Flatus (the digestive system)? Standards: 6-LS1-3, 6-LS1.A, 6-LS1-8, 6-LS1.D

SEVEN WONDERS Months offered: AUGUST, SEPTEMBER, OCTOBER, DECEMBER & JANUARY

Turn back the pages of time and witness the ancient wonders of the world, as they appeared thousands of years ago. Explore the Great Pyramid, stand in the shadow of the towering Colossus and experience the rest of the world's Seven Wonders. We will investigate the theories of how these wonders were created and get a glimpse of some of the universe's greatest wonders. Standards: Social Studies 6-1.3, 6-2.3

DISCOVERY PROGRAMS

ENERGY TRANSFORMATIONS Months offered: AUGUST, SEPTEMBER & OCTOBER

Students will build and power circuits using different energy sources such as chemical, mechanical and thermal. Explore the benefits of solar panels and learn how clean energy is the way of the future! Program Made possible with support from SCANA and Generac. Standards: 6-PS3-3, 6-PS3.A, 6-PS3.B, 6-ETS1.B

HIKER Months offered: DECEMBER & JANUARY

This interactive computer program explores graphing concepts by tracking students' movements. Students enjoy the challenge and fun of moving to create specific line graphs. Standards: Mathematics 6.DPSR.1.2, 6.DPSR.1.3

MARS MATH EXPEDITION Months offered: AUGUST, SEPTEMBER & OCTOBER

Students will code their Competition Advanced Hero Bot to complete a series of tasks to earn points in the Mars Math Expedition competition. The Playground features twelve different tasks that can be completed to earn points. Students must choose tasks strategically to earn the post point possible in one minute. Made possible with support from Generac. Standards: 6.AP.1.1, 6.AP.1.2, 6.AP.3.1, 6.AP.4.1

6th Sixth Grade

SC Programs Continued…

DISCOVERY PROGRAMS

ROCKIN' & ROLLIN' Months offered: DECEMBER & JANUARY

Students observe excellent specimens of igneous, sedimentary and metamorphic rocks. They compare physical properties, relate properties to formation processes, and examine sand derived from various rocks. They also classify fossils and products of Earth resources. Standards: 6-ESS2-1, ESS2.A, 6-ESS2-2, ESS2.C

SEAFLOOR SURVEYORS Months offered: DECEMBER & JANUARY

Join us for a deep-sea mapping expedition that reveals connections between landforms and plate tectonics. Students use sounding probes, look for patterns, and make inferences about the landforms in a 5' by 7' scale model of the region from 0˚ to 22˚ N and 35˚ to 65˚ W. Students discuss constructive and destructive forces and compare the worldwide distribution of earthquakes and volcanoes to plate boundaries. Standards: 6-ESS2-3, ESS2.B, ETS2.A

WEATHER AND CLIMATE Months offered: AUGUST, SEPTEMBER & OCTOBER

Students will participate in hands-on activities and data collection to get a better understanding of the interactions within Earth's systems that regulate weather and climate. Standards: 6-ESS2-4, 6-ESS2.C, 6-ESS2.D, 6-ESS2.6

7th

Seventh Grade

South Carolina Programs

MONTHLY PROGRAM PAIRINGS

OCTOBER & NOVEMBER	JANUARY & FEBRUARY	SEPTEMBER, APRIL & MAY
*Habitat Earth Center of the Atom Coral Reef Rescue Meet the Elements Modeling Atoms	*Habitat Earth Are You Dense? Changes Matter Ravenous Raptors Modeling Atoms	Ecohike in Hitchcock Woods

PLANETARIUM PROGRAMS

HABITAT EARTH Months offered: OCTOBER, NOVEMBER, JANUARY & FEBRUARY

Dive below the ocean's surface and travel beneath the forest floor to explore how living organisms are interconnected to support life forms both large and small. From the tiniest microbe to the tallest tree, *Habitat Earth* utilizes stunning images to show students how the biological world is carefully intersected with human and ecological networks.
Standards: 7-LS1-6, LS1.C, 7-LS2-1, LS2.A, 7-LS2-3, LS2.B

DISCOVERY PROGRAMS

ARE YOU DENSE? Months offered: JANUARY & FEBRUARY

Students explore density using Earth materials including minerals, water, sand, and iron filings. They will take measurements, collect data, plot coordinates, and interpret graphs as they analyze the mathematical relationship between mass and volume. Standards: 7.NS.2, 7.NS.3, 7.NS.4, 7.DSP.3

CENTER OF THE ATOM Months offered: OCTOBER & NOVEMBER

Students explore atomic structure using a series of hands-on activities which concludes with the discovery of the uses of an atom they create using the Interactive Nucleus display and the Living Periodic Table. Made possible with support from Generac. Standards: ESS3.A, ESS3.C, ESS3.D, ETS2.B

CHANGES MATTER Months offered: JANUARY & FEBRUARY

Students explore physical and chemical properties of matter. They compare physical and chemical changes and experience reactivity through experiments and an "igniting" demonstration! Made possible with support from Generac. Standards: 7-PS1-2, 7-PS1.A, 7-PS1.B

CORAL REEF CLEANUP Months offered: OCTOBER & NOVEMBER

In Coral Reef Cleanup, students will code a virtual Ocean Cleaning Robot in an immersive underwater playground to collect and remove as much trach as possible from the floor of the Mangrove Reef. The Ocean Cleaning Robot's batteries will only last for a few minutes, so students will be challenged to collect as much trash as they can before the batteries on the VR Robot are drained. Standards: 7.AP1.1, 7.AP2.1, 7.AP.3.1, 7.AP.4.1

7th

Seventh Grade

SC Programs Continued…

DISCOVERY PROGRAMS

MEET THE ELEMENTS Months offered: OCTOBER & NOVEMBER

Students "meet the elements" in a fun music video; then work together to classify materials as elements, compounds and mixtures. They will build atomic models and discover why compounds are either ionic or covalent. Made possible with support from Generac. Standards: 7-PS1-1, PS1.A

MODELING ATOMS Months offered: OCTOBER, NOVEMBER, JANUARY & FEBRUARY

Modeling Atoms allows students to visualize the makeup of an atom in three-dimensional space by creating models of the subatomic particles that make up an atom. Students will learn concepts about atoms, molecules, and isotopes through drawing and constructing models of atoms. Made possible with support from Generac. Standards: 7-PS1-1

RAVENOUS RAPTORS Months offered: JANUARY & FEBRUARY

What is a raptor? How is an osprey's talon different from an owl's? Students will take an up-close look at birds of prey and examine their role in the food chain. Using field guides and wing/talon specimens we will compare and contrast physical characteristics, adaptations and habitats of these predators. Standards: 7-LS2-1, LS2.A, 7-LS2-2

OUTDOOR EXTENDED HOUR PROGRAM

ECOHIKE IN HITCHCOCK WOODS Months offered: SEPTEMBER, APRIL & MAY

This is a two-hour, two-mile guided hike through Hitchcock Woods. Native plants will be identified, evidence of animal life will be examined, and forest communities will be compared. Standards: 7-LS2.C, 7-LS2.A

8th Eighth Grade

South Carolina Programs

MONTHLY PROGRAM PAIRINGS

AUGUST, SEPTEMBER & OCTOBER	DECEMBER & JANUARY
*Engineering the International Space Station	* Engineering the International Space Station
Animal Adaptation	Kinesthetic Astronomy
Force and Motion	Lunar Design Challenge
Lunar Design Challenge	Rover Rescue

PLANETARIUM PROGRAMS

ENGINEERING THE INTERNATIONAL SPACE STATION Months offered: AUG., SEPT., OCT., DEC. & JAN.

This interactive show describes how 15 nations worked together to create the International Space Station (ISS), a unique scientific laboratory and home in space. A rap and animations explain how weight, mass, gravity and speed are related, and why astronauts are weightless on the ISS even though there IS gravity in space. Benefits to humanity of the ISS are also discussed. Standards: 8-ESS1-2, ESS1.A, ESS1.B, ETS2.A

DISCOVERY PROGRAMS

ANIMAL ADAPTATIONS Months offered: AUGUST, SEPTEMBER & OCTOBER

We will compare and contrast structures; processes and behavior responses that help endothermic and ectothermic animals survive. Students will observe and interact with live animals including salamanders, frogs/toads, turtles, snakes and alligator and an owl. Standards: 8-LS4-6, LS4.C, 8-LS3-1, LS3.A, LS3.B

FORCE & MOTION Months offered: AUGUST, SEPTEMBER & OCTOBER

Students will conduct investigations to distinguish between force and work, and mass and weight. They will demonstrate how weight changes on different planets, what increases the strength of an electromagnet, and how mass effects motion. Made possible with support from Generac. Standards: 8-PS2-1, PS2.A, 8-PS2-2, 8-PS2-3, 8-PS2.B, 8-PS2-4, 8-PS2-5

KINESTHETIC ASTRONOMY Months offered: DECEMBER & JANUARY

Students get a feel for the scale of the universe as they sort celestial objects; then they model the Earth, Moon and Sun. They will discover why stars appear to move across the sky each day/night, why we see different stars during the year and how Earth's tilt causes seasons. Standards: 8-ESS1-1, 8-ESS1.A, 8-ESS1.B, 8-ESS1-3

LUNAR DESIGN CHALLENGE Months offered: AUG., SEPT., OCT., DEC. & JAN.

Students will design, build, and test a Lunar Buggy to transport astronauts and cargo on the Moon. They will collect and analyze data, take measurements, and refine their models using the Engineering Design Process. Made possible with support from Generac. Standards: 8-PS2-2, PS2.A, ETS1.B

ROVER RESCUE Months offered: DECEMBER & JANUARY

A new planet has been discovered! Sadly, the rover sent was attacked by an alien creature. You are the best hope the crew has for keeping the mission going! As the coder tasked with the rover's survival, you must code the rover to explore the planet and collect mineral samples until the rest of the crew can return with the equipment needed to neutralize the hostile environment. Standards: 8.AP.1.1, 8.AP.1.2, 8.AP.3.2, 8.AP.4.1

9th - 12th

High School

South Carolina Programs

Monthly Program Pairings

OCTOBER & NOVEMBER	JANUARY & FEBRUARY	SEPT., APRIL & MAY
*Sunstruck OR *Cosmic Colors OR *Ancient Sky Lore Center of the Atom Probing Periodic Table Modeling Atoms OR Radiation All Around Us	*Sunstruck OR *Cosmic Colors OR *Ancient Sky Lore Center of the Atom Lunar Design Challenge Modeling Atoms OR Radiation All Around Us	Ecohike in Hitchcock Woods

PLANETARIUM PROGRAMS

ANCIENT SKY LORE Months offered: OCTOBER, NOVEMBER, JANUARY & FEBRUARY

In this live show, the presenter points out constellations and stars while sharing enchanting tales involving heroes and maidens, herdsmen and a harp, and real and imaginary animals. Star stories from ancient cultures come to life on the planetarium dome! Standards: NT.1.3

COSMIC COLORS Months offered: OCTOBER, NOVEMBER, JANUARY & FEBRUARY

Cosmic Colors will take you on a wondrous journey across the electromagnetic spectrum. Discover the many reasons for color – like why the sky is blue and why Mars is red. Take a tour within a plant leaf and journey inside the human eye. Investigate x-rays at your doctor's office and at a monstrous black hole. Get ready for an amazing adventure under a rainbow of cosmic light! Standards: C-PS4-5, P-PS4-1

SUNSTRUCK Months offered: OCTOBER, NOVEMBER, JANUARY & FEBRUARY

Discover the wonders of our sun! It's incredible energy supports life on Earth, but solar storms can threaten our technology and way of life. Discover connections between sunspots, magnetic fields, aurora, and power failures. Travel to the distant future to discover our sun's connection to the cosmic cycle of life and death. Standards: E-ESS1-1, ESS1.A, PS3.D

DISCOVERY PROGRAMS

CENTER OF THE ATOM Months offered: OCTOBER, NOVEMBER, JANUARY & FEBRUARY

Students explore atomic structure using a series of hands-on activities which concludes with the discovery of the uses of an atom they create using the Interactive Nucleus display and the Living Periodic Table. Made possible with support from Generac. Standards: C-PS1-8, PS1.A, PS1.C

LUNAR DESIGN CHALLENGE Month offered: JANUARY & FEBRUARY

Students will design, build, and test a Lunar Buggy to transport astronauts and cargo on the Moon. They will collect and analyze data, take measurements, and refine their models using the Engineering Design Process. Made possible with support from Generac. Standards: ETS1.B, ETS1.C, (SEP)

9th-12th

High School

SC Programs Continued …

DISCOVERY PROGRAMS

MODELING ATOMS Months offered: OCTOBER, NOVEMBER, JANUARY & FEBRUARY

Modeling Atoms allows students to visualize the makeup of an atom in three-dimensional space by creating models of the subatomic particles that make up an atom. Students will learn concepts about atoms, molecules, and isotopes through drawing and constructing models of atoms. Made possible with support from Generac. Standards: P-PS2-6

PROBING THE PERIODIC TABLE Months offered: OCTOBER & NOVEMBER

This program demystifies the periodic table and makes learning about atoms fun! Students grasp the organization of the periodic table as they construct a Periodic Table of Foods. Then, they build atomic models and use them to find patterns in the structure and behavior of elements. Made possible with support from Generac. Standards: C-PS1-1, PS1.A, C-PS1-2

RADIATION ALL AROUND US Months offered: OCTOBER, NOVEMBER, JANUARY & FEBRUARY

Radiation All Around Us explores forms of radiation, natural and manmade, and how this invisible energy can be understood as both hazardous and helpful. Learn how nuclear workers at Savannah River Site protect themselves and the public from dangerous radiation. Made possible with support from Generac. Standards: P-PS4-4; P-PS-4-5

OUTDOOR EXTENDED HOUR PROGRAM

ECOHIKE IN HITCHCOCK WOODS Months offered: SEPTEMBER, APRIL, & MAY

This is a two-hour, two-mile guided hike through Hitchcock Woods. Native plants will be identified, evidence of animal life will be examined, and forest communities will be compared. Standards: B-LS2-6, LS2.C

Educator Resources

Traveling Science and Mathematics Demonstrations Program

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

For more information please visit: usca.edu/rpsec/travelingscience or call us at 803-641-3683.

Physical science series made possible with support from

GENERAC

SEED STEM Festival

Mark your calendars for the CSRA's premier STEM festival. Join us for the CSRA's premier STEM festival and celebrate innovations in science, technology, engineering, and mathematics (STEM). Visit the Ruth Patrick Science Center and other sites on the USC Aiken campus as student groups, regional corporations, museums, educators, and national labs join forces to present hundreds of activities for people of all ages.

Organizers hope to increase awareness of the critical role science and other STEM fields play in our everyday existence.

Ruth Patrick Science Education Center
University of South Carolina Aiken
SEED STEM Festival

Visit usca.edu/rpsec/seed

Mathematics series made possible with support from

GENERAC

RPSEC Professional Learning

Providing professional learning activities for teachers is a primary method for reaching our goal of "Infusing a Love for Science, Technology, Engineering and Mathematics." Highly qualified teachers are the primary way to impact our students. Professional Learning at the RPSEC offers a variety of activities during the summer and the academic year.

Professional Learning opportunities focus on a content area but include all STEM areas.

Visit usca.edu/rpsec/departments/professional-learning for more information.

Traveling Interdisciplinary Literacy Trunks (TILTS)

Traveling Interdisciplinary Literacy Trunks (TILTs) are teacher-designed, interdisciplinary units of study that are aligned with academic standards from multiple content areas with an emphasis on writing across the curriculum.

TILT unit plans are now available, FREE of charge, to ALL teachers.

Each completed TILT includes the following: a unit plan, children's literature, class sets of novels, science equipment, math manipulatives and a teacher resource list. Reserve yours today by e-mailing the RPSEC at travelingscience@usca.edu or calling 803-641-3638.

For more information please visit: usca.edu/rpsec/travelingscience
or call us at 803-641-3683.

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(AWP) and the Sunrise Rotary Club of Aiken.

Ruth Patrick Science Education Center

The Aiken Writing Project

CE-MIST
Center of Excellence in Middle-level, Interdisciplinary Strategies for Teaching