



Upper Level

SOUTH CAROLINA

Calendar of Program Offerings

2017-2018

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**.

2017-2018 South Carolina Upper Level Student Programs Calendar

	SIXTH GRADE	SEVENTH GRADE	EIGHTH GRADE	HIGH SCHOOL
SEPTEMBER	Energy Transformations Polygon Puzzle Simple Machines		*Engineering the ISS Force & Motion Minerals, Ores & Fossil Fuels	**Ecohike in Hitchcock Woods (2 hour guided hike)
OCTOBER	Energy Transformations Polygon Puzzle Simple Machines	Center of the Atom Changes Matter Meet the Elements Radioecology	*Engineering the ISS Force & Motion Radioecology Rockin' & Rollin'	*Engineering the ISS Center of the Atom Probing Periodic Table Radioecology
NOVEMBER	**Ecohike in Hitchcock Woods (2 hour guided hike)	Changes Matter Meet the Elements Ravenous Raptors	*Dark Shadows Kinesthetic Astronomy Lunar Design Challenge	*Dark Shadows Kinesthetic Astronomy Lunar Design Challenge
DECEMBER			*Dark Shadows Kinesthetic Astronomy Lunar Design Challenge	*Dark Shadows Kinesthetic Astronomy Lunar Design Challenge
JANUARY			*Planetarium Program Minerals, Ores & Fossil Fuels Seafloor Surveyors	
FEBRUARY	*Planetarium Program Animal Adaptations Hiker	*Planetarium Program Are You Dense? Ravenous Raptors	*Planetarium Program Rockin' & Rollin' Seafloor Surveyors	
MARCH	*Planetarium Program Animal Adaptations Hiker	*Planetarium Program Are You Dense? Ravenous Raptors		**Ecohike in Hitchcock Woods (2 hour guided hike)
APRIL	**Ecohike in Hitchcock Woods (2 hour guided hike)	**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)		**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)



Eighth Grade South Carolina Programs

MONTHLY PROGRAM PAIRINGS

SEPTEMBER	OCTOBER	NOVEMBER & DECEMBER	JANUARY	FEBRUARY
*Engineering the ISS Force & Motion Minerals, Ores & F. Fuels	*Engineering the ISS Force & Motion Radioecology Rockin' & Rollin'	*Dark Shadows Kinesthetic Astronomy Lunar Design Challenge	*Planetarium Program Minerals, Ores & F. Fuels Seafloor Surveyors	*Planetarium Program Rockin' & Rollin' Seafloor Surveyors

PLANETARIUM PROGRAMS

NEW PLANETARIUM PROGRAMS Months offered: JANUARY & FEBRUARY

The RPSEC will be selecting grade level appropriate planetarium programs to offer during these months. All programs will be standards-based; full dome shows viewed with our newly upgraded planetarium equipment!

DARK SHADOWS Months offered: NOVEMBER & DECEMBER

Through hands-on activities and stunning images, students learn what causes the phases of the Moon as well as solar and lunar eclipses. Standards: 8.E.4B.1, 8.E.4B.2, 8.E.4B.3, 8.E.4B.4

ENGINEERING THE ISS Months offered: SEPTEMBER & OCTOBER

How do you build a million-pound object that will stay in orbit and sustain human life? Learn how 15 nations worked together to engineer 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. Standards: 8.S.1B.1, 8.E.4B.5

DISCOVERY PROGRAMS

FORCE & MOTION Months offered: SEPTEMBER & OCTOBER

Students will conduct investigations to distinguish between force and work, and mass and weight. They will demonstrate how simple machines such as levers, pulleys, and inclined planes reduce the amount of force needed to do work.

Standards: 8.P.2A.1, 8.P.2A.2, 8.P.2A.3, 8.P.2A.4, 8.P.2A.5

KINESTHETIC ASTRONOMY Months offered: NOVEMBER & DECEMBER

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.E.4A.1, 8.E.4B.1

MINERALS, ORES & FOSSIL FUELS Months offered: SEPTEMBER & JANUARY

Students learn to identify minerals by examining key properties of museum quality specimens; then they identify 10 unknown minerals using a dichotomous key. Valuable products made from Earth resources are discussed throughout the program. Standards: 8.E.5A.1, 8.E.5A.2

LUNAR DESIGN CHALLENGE Months offered: NOVEMBER & DECEMBER

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. Standards: 8.S.1A.2, 8.S.1A.3, 8.P.2A.1, 8.P.2A.2



Eighth Grade

SC Programs Continued ...

DISCOVERY PROGRAMS

RADIOECOLOGY Month offered: OCTOBER

Learn what happens when radionuclides and ecosystems meet with the Savannah River Ecology Laboratory scientists. The SREL has the only radioecology undergraduate education program in the world. Challenge the myths and learn the facts about radioecology from research conducted at the SRS in Aiken, South Carolina, the Chernobyl Exclusion Zone in Russia, and the Fukushima Daiichi accident in Japan. Standards: 8.E.6B

ROCKIN' & ROLLIN' Months offered: OCTOBER & FEBRUARY

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: 8.E.5A.1, 8.E.5A.4, 8.E.5A.5

SEAFLOOR SURVEYORS Months offered: JANUARY & FEBRUARY

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: 8.E.5A.4, 8.E.5A.5, 8.E.5B.1, 8.E.5B.2



Ruth Patrick Science Education Center

UNIVERSITY OF SOUTH CAROLINA AIKEN

2017-2018 RPSEC PROGRAMS RESERVATION INFORMATION

PROGRAM REQUEST GUIDELINES

We recommend that ONE teacher make a reservation request for the entire grade level. We can accommodate up to 90 students per day (typically 9:15am- 1:15pm) unless special arrangements are made in advance for larger groups. Go to: <http://rpsec.usca.edu/student/ExpandedDoubleTriple.pdf>

- Groups of 10 to 30 students -

Plan to select **one, two, or three programs** per visit. Programs are 1 hour long.

- Groups of 31 to 60 students -

Must select **two or three programs** per visit.

Only **ONE** program may be a planetarium program.

Your visit will be approximately 3 hours/2 programs or 4 hours/3 programs (includes 30 minute lunch break).

- Groups of 61 to 90 students -

Must select **three programs** with only **ONE** planetarium program.

Your visit will be approximately 4 hours (includes a 30 minute lunch break).

RPSEC PROGRAM FEES

Type of Program	Aiken County Students	All Other Students
DISCOVERY	Prepaid by district	\$3.50 per student/per program
PLANETARIUM	\$3.50 per student/per program	\$3.50 per student/per program

One adult per eight students admitted free for planetarium programs. Additional adults pay \$3.50 each.

2016-2017 Reservation Request Timeline:

Friday, June 9 th	Deadline to submit Student Programs Requests for 2017-2018 Confirmation contract letters will be mailed to teachers' home addresses no later than July 28 th
Friday, August 25 th	Deadline to return signed Confirmation Contract Letters to the RPSEC
Tuesday, August 29 th	All unconfirmed 2017-2018 student programs <u>will be cancelled</u> and filled from the wait list
Wednesday, September 6 th ...	RPSEC Student Programs classes begin

PROGRAM GUIDELINES

Children **UNDER 4 years of age** are **not permitted** in any of our student programs.

Please see the age guidelines on our program descriptions sheet.

Please help our stars shine brightly in the planetarium by leaving any light-up shoes or clothing at home.

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.

2017-2018 RPSEC STUDENT PROGRAMS RESERVATION REQUEST

Completed forms may be emailed to RPSEC@usca.edu; or mailed to RPSEC, Box 3, USC Aiken, 471 University Parkway, Aiken, South Carolina 29801; or faxed to 803-641-3615.

You can find this form and other information at: <http://rpsec.usca.edu/student/>. You may also call us at (803) 641-3313.

Teacher's Name: _____ Birthdate (mm/dd): _____

Last four digits of SS#: _____ Home Phone: _____ Cell Phone: _____

E-mail Address (program reminder sent via e-mail): _____

Home Mailing Address (confirmation contract sent via postal mail): _____

City: _____ State: _____ Zip: _____

School: _____ District/County: _____ Grade Level: _____

School/Organization Phone: _____ Special Education Needs (Y or N): _____

Name(s) of other teacher(s) who will attend: _____

PROGRAM REQUEST INFORMATION

Number of students visiting PER DAY: (10 min, 90 max) _____ Scheduling entire grade level? _____ If YES, total # of students: _____

How many programs would you like to request PER DAY? (check one): _____ 1 program _____ 2 programs _____ 3 programs

Please reference our **Field Trip Directory for Monthly Pairings**. Programs are **NOT offered every month**.

FIRST CHOICE

MONTH: _____

Program #1: _____

Program #2: _____

Program #3: _____

ALTERNATE CHOICE

SELECT A DIFFERENT MONTH THAN 1ST CHOICE/WILL BE USED IF 1ST CHOICE IS UNAVAILABLE

MONTH: _____

Program #1: _____

Program #2: _____

Program #3: _____

If available, please use my alternate choices to schedule a 2nd visit for this school year. (Y or N) _____

Check ANY of the days of the week that you CAN visit:

____ MONDAY ____ TUESDAY ____ WEDNESDAY ____ THURSDAY ____ FRIDAY

Check ANY of the times that you **CAN START YOUR FIRST PROGRAM**:

____ 9:15 AM ____ 10:30 AM ____ 12:00 PM ____ 1:15 PM ____ OTHER: _____

What is the **latest time** that you will need to leave the RPSEC? _____

____ CHECK HERE if you are planning on using our CAFETERIA/CLASSROOMS for lunch.

Our center **DOES NOT** provide lunches but you are welcome to bring a bag lunch for your visit.

List ANY specific dates that you CANNOT visit:

COMMENTS:

OFFICE USE ONLY:

OFFICE USE ONLY: Date Received