



# Eighth Grade Georgia Programs

## MONTHLY PROGRAM PAIRINGS

OCTOBER & NOVEMBER	FEBRUARY & MARCH
*Cosmic Colors Center of the Atom Meet the Elements Rover Rescue	*Cosmic Colors Are You Dense? Force & Motion Hiker

## PLANETARIUM PROGRAMS

### COSMIC COLORS Months offered: OCTOBER, NOVEMBER, FEBRUARY & MARCH

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: S8P4.a, S8P4.b, S8P4.c, S8P4.d, S8P4.e, S8P4.f, S8P4.g

## DISCOVERY PROGRAMS

### ARE YOU DENSE? Months offered: FEBRUARY & MARCH

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: 8.PAR.4.4, 8.FGR.6.1, 8.FGR.6.4

### 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: S8P1.e

### HIKER Months offered: FEBRUARY & MARCH

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: S8P3.a

### FORCE & MOTION Months offered: FEBRUARY & MARCH

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. Made possible with support from Generac. Standards: S8P3.a, S8P3.b, S8P3.c

### MEET THE ELEMENTS Month 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: S8P1.a, S8P1.b, S8P1.e



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### DISCOVERY PROGRAMS

#### ROVER RESCUE Months offered: OCTOBER & NOVEMBER

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: CSS.DC.6-8.3, CSS.IDC.6-8.18, CSS.IDC.6-8.19, CSS.IDC.6-8.20



# 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](https://usca.edu/rpsec/travelingscience) or call us at 803-641-3683.

Physical science series made possible with support from

# GENERAC

## SEED 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.

Visit [usca.edu/rpsec/seed](https://usca.edu/rpsec/seed)  
for more information.



## 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](https://usca.edu/rpsec/departments/professional-learning) for more information.

Mathematics series made possible with support from

# GENERAC

## 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](mailto:travelingscience@usca.edu) or calling 803-641-3638.

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

Funding for our TILTs has been provided by the Center of Excellence in Middle-level, Interdisciplinary Strategies for Teaching (CE-MIST), the Aiken Writing Project (AWP) and the Sunrise Rotary Club of Aiken.



**Ruth Patrick Science  
Education Center**  
University of South Carolina Aiken