

5TH

Fifth Grade



A typical Fifth Grade visit will consist of two 90-minute learning labs, one at 9:30am and a second one at 11:45am. Lunch will be scheduled as part of your visit.

Southeastern Seashore Explorations Marine Lab — 90 Minutes

Students will discover the complex and interactive relationships involved in an aquatic ecosystem. They will experience the biotic (living) and abiotic (non-living) components of ocean organisms by exploring our live Animal Touch Tanks and through hands-on experiences. They will apply this knowledge as they analyze the flow of energy through the ecosystem, with an emphasis on changes to food chains and food webs. **Science Standards: 5.L.4A**

Owl Pellet Dissection Lab Natural Science Lab — 90 Minutes

Dissecting an owl pellet reveals the organisms in the owl's food web, as well as illustrating their niche in ecosystems. Unravel the secrets of the woods at night by dissecting the fuzzy clue of an owl pellet. Each student will keep their own dissected pellet for further investigation. **Science Standards: 5.L.4B**

Exploring the Unseen World Ecology Lab — 90 Minutes **New!**

What mysterious creatures lie hidden beyond our normal sight? Students become microbiologists as they collect samples from our woodland forest and pond and use scientific tools to examine biotic and abiotic factors of terrestrial and aquatic ecosystems. **Science Standard: 5.L.4, 5.L.4A.1, 5.L.4A.2**

A Challenging Mixture! Chemistry Lab — 90 Minutes

Students have been hired by RMSC Recycling Company! While on the job, they will learn how to recognize a mixture by its physical properties and then use methods such as filtration, sifting, magnetism, chromatography, and flotation to separate a mixture back into its original state. Working in teams, students will devise a plan for separating a mixture of common recyclable materials. At quitting time, students will combine their efforts and total their earnings for a class paycheck! **Science Standard: 5.P.2B.6**

Reconstruction in South Carolina Living History Farm and One-Room School — 90 Minutes

Students will visit historic cabins and the one-room schoolhouse to gain a better understanding of life after the Civil War. They will experience a one-room school lesson, work with cotton, and work in teams on a hands-on activity to become more familiar with sharecropping and the effects of Reconstruction on the South. **Social Studies Standard: 5-1.2, 5-1.4**

Continued on next page.



**Roper Mountain
Science Center**

A 402 Roper Mountain Road
Greenville, SC 29615

P 864.355.8900 F 864.355.8948

RoperMountain.org

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Where Enlightening Strikes!

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Continued from previous page.

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Explorobotics — Exploring Speed! STEM Lab — 90 Minutes

The mission to Mars starts now! Students will work as international space agency teams to complete their mission to survive on Mars by exploring position, direction and speed. Using programmable LEGO robots, student teams will work collaboratively to collect and analyze data to program their rover to design a solution to complete their missions. Students will engage in hands-on problem-solving, computational thinking and the engineering process to complete their mission to survive on Mars! **Science Standards: 5.P.5A.1; 5.S.1A.5; 5.S.1B.1**

Spy Academy: Unbalanced Forces STEM Lab — 90 Minutes

Calling all agents! The world's top spy, 00Roper, has gotten into some trouble while stealing Dr. Ollie's plan for world domination from his secret island laboratory. Students will take on the role of spy agents-in-training and have to work together to engineer, implement, and modify gadgets to save him. They will learn about the relationships between force, friction, and motion using robots (Spheros) and message-sending rockets. The agents will use what they learn to design a way to save the day! **Science Standards: 5.P.5A.3; 5.P.5A.4**

Low Ropes, High Adventure Outdoors — 90 Minutes (weather permitting)

Discover the importance of collaboration and creative problem solving as your students navigate their way through a series of highly interactive challenges that take place on our outdoor Low Ropes Adventure Course. Every element requires students to work cooperatively in small groups as they complete a series of physical activities while recognizing the positive attributes of themselves and others. **South Carolina Physical Activities Standards: 5-4.1, 5-4.3, 5-4.4, 5-4.5**

Made possible by: **FLUOR**.

Incredible Flight of the Monarch Design Lab — 90 Minutes

Students will observe the life of a Monarch Butterfly and model how it uses energy from its ecosystem. They will explore butterfly adaptations, both physical and behavioral, that allow the Monarch to migrate across different ecosystems while traveling from the United States to Mexico. By using the Engineering Design Process, students will also create and test butterfly wings in our wind tunnels. **Science Standards: 5.L.4B, 5.S.1A.2, 5.P.5A.3**



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“Sea” It In A Day

9:30am to 1:30pm

Up to four school classes rotate through four different 45-minute ocean themed learning labs.

Landforms: Above and Below - Mineral Lab **New!**

In this hands-on lesson, students will create and use models, including our new virtual reality sand tables, to explore similarities and differences between the location and structure of landforms found on the continents and ocean floor.

Science Standards: 5.E.3, 5.E.3A

A Muddy Mess! Interdependent Relationships of the Salt Marsh Ecosystem - Ecology Lab **New!**

Dive into the wonders of the salt marsh and discover the vital role that it plays in the health of our coastline as students explore the interdependent nature of this fascinating ecosystem and create habitats from pluff mud, spartina grass and live fiddler crabs. Science Standards: 5.L.4, 5.L.4A

Diving Deep into Coral Reefs - Marine Lab **New!**

In this immersive lesson, students discover the fragile yet important role that coral reef ecosystems play in the health of our oceans. Through hands-on interaction with live ocean animals and visits to both natural and artificial reefs using virtual reality viewers, students will explore ways that energy is transferred within healthy ecosystems between predator and prey. Science Standards: 5.L.4, 5.L.4A

Shrimp Ecology of South Carolina- Natural Science Lab **New!**

Investigate the wonderful world of shrimp and the role they play in coastal waters. Through examining locally grown shrimp, students will discover how this filter feeder is well-adapted for life in the oceans and learn its importance to the economy of South Carolina. Science Standards: 5.L.4, 5.L.4B