



## INTRO TO SOUTH FLORIDA ECOSYSTEMS

This program immerses your students in the seagrass, mangrove, & coral reef communities of South Florida. First, your class will get our eMarineLab program “Life on A Rock” to learn about invertebrates. During the field day, our instructors teach safe snorkeling skills, guide the students in their explorations, and provide an experience that your class will be talking about all year. Snorkel gear is included.

**COST:** \$200 per student, minimum of 9 students, booked in groups of 9. One chaperone per 9 students is required, no charge. **FUNDING AVAILABLE FOR TITLE I SCHOOLS.**

TIME	ACTIVITY
Teacher’s Choice of Days and Times	<b>Life On A Rock</b> virtual program Micro and macro invertebrates from a community that live on live rocks found in Key Largo inshore waters will be displayed. With guidance from the instructor, students practice close scientific observation and use these observations to create explanations. Plenty of time will be allotted for viewing of the entire live rock community (i.e. seastars, amphipods, snails, crabs, isopods, etc.)
<b>FIELD DAY</b>	
8:30 AM	Arrive, facility orientation
9 AM – 10 AM	<b>Snorkel Orientation, Swim Test</b> Students will be introduced to snorkel gear and how to fit and use it and demonstrate their comfort level in the water with their snorkel buddy. Our instructors actively guide and help each and every snorkeler get comfortable and confident in the water!
10:15 AM – 11:30AM	<b>FIELD TRIP: Seagrass &amp; Mangrove Ecology Snorkel</b> The boat and the outdoors are our classroom for this program which includes a discussion of the importance of these habitats and identifying characteristics of our mangroves before snorkeling a site providing a glimpse of both seagrass and mangrove habitats. Instructor will collect samples of seagrass, algae, and representative invertebrates to bring back to the boat for observation and discussion.
11:45 – 12:15	Bag lunch from home
12:15 – 2:45 PM	<b>FIELD TRIP: Coral Reef Ecology &amp; Snorkel</b> Corals are the key component to the Florida Keys’ marine ecosystem. Students discuss coral reef ecology with a MarineLab instructor before boarding the boats to snorkel the coral reefs off of Key Largo. MarineLab staff will be in the water and on the boat to lifeguard, point out marine life, and discuss observations
3:00 PM	Enjoy a freshwater rinse before getting back on the bus for home

# MarineLab One Day Programs - Intro to South Florida Ecosystems Continued

## **Next Generation Sunshine State Standards Addressed**

SC.5.N.1.6 Recognize and explain the difference between personal opinion/interpretation and verified observation.

SC.5.L.14.2 Compare and contrast the function of organs and other physical structures of plants and animals, including humans, for example: some animals have skeletons for support -- some with internal skeletons others with exoskeletons -- while some plants have stems for support

SC.5.L.15.1: Describe how, when the environment changes, differences between individuals allow some plants and animals to survive and reproduce while others die or move to new locations.

SC.5.L.17.1 Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.

SC.5.N.2.1 Recognize and explain that science is grounded in empirical observations that are testable; explanation must always be linked with evidence.

SC.6.L.15.1: Analyze and describe how and why organisms are classified according to shared characteristics with emphasis on the Linnaean system combined with the concept of Domains.

SC.7.L.17.2: Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism.

SC.7.L.17.3: Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.

SC.8.N.1.6 Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.

SC.912.L.14.7 Relate the structure of each of the major plant organs and tissues to physiological processes.

SC.912.L.15.7: Discuss distinguishing characteristics of vertebrate and representative invertebrate phyla, and chordate classes using typical examples.

SC.912.L.17.2: Explain the general distribution of life in aquatic systems as a function of chemistry, geography, light, depth, salinity, and temperature.

SC.912.L.17.4: Describe changes in ecosystems resulting from seasonal variations, climate change and succession.

SC.912.L.17.6: Compare and contrast the relationships among organisms, including predation, parasitism, competition, commensalism, and mutualism.

SC.912.L.17.8: Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species.

SC.912.N.1.6 Describe how scientific inferences are drawn from scientific observations and provide examples from the content being studied.