

St. Johns County School District's
MARINE SCIENCE PROGRAM
MIDDLE SCHOOL PROGRAM
(students entering the 6th grade in August)

Students are assigned to small classes of approximately 15 students by grade level. Each class rotates to another instructor every two days. To accommodate the large number of students applying to the program and keep class sizes small, we will have three sixth grade groups. Students may not move groups. Each group will do similar activities but on different days with different instructors. Due to weather or class size activities may change. Depending on where the student starts in the rotation will determine daily schedule.

STAND UP PADDLEBOARDING (SUP) I, NUTRITION AND EXERCISE

Students will begin the day with a lecture on the life-long benefits of nutrition and exercise. The emphasis will be on developing strength and athletic skills through recreational water activities. Following an educational presentation on the skills and safe use of SUP's, the class will travel to the Summer Haven area where they will practice stand up paddle boarding on the program's set of SUP's. While half the class is on the water with one instructor, the other students with a second instructor will explore the natural but rapidly changing environment of the Summer Haven River. Students will then rotate activities.

**KAYAKING SKILLS AND SAFETY I, FRESHWATER AND
SALTEWATER ECOLOGY COMPARISON**

Students will participate in a discussion on the local fish food web of Pellicer Creek. Students will learn the importance of this estuarine tidal marsh as it relates to fresh and saltwater animal and plant life. With more than 100 bird species during migration seasons there is a lot to learn about the beautiful Faver Dykes state park. Students will practice catch and release fishing, seine netting and cast netting to record their species identification of fish and marine life. Students will then learn kayaking safety and beginning skills as they journey along the creek.

SNORKELING SKILLS AND SAFETY I, FRESH WATER ECOLOGY I

After a lecture on the formation of freshwater springs and their unique animal and plant life, the instructor will discuss snorkeling skills and safety procedures. Students will then travel to Alexander Springs Park where they will actively participate in snorkeling, view freshwater plants and animals in their natural habitats, and discuss the underground springs and aquifer system of Florida.

LOCAL SPECIES DIVERSITY I

After a freshwater ecology and crocodilian biology lecture, students will discuss the role of reptiles in Florida's ecology. They will then travel to the St. Augustine Alligator Farm for a day-long experience which includes behind the scenes "hands-on" activities. Ending the day with a swim at Anastasia State Park.

CANOEING SKILLS AND SAFETY I, SALT MARSH ECOLOGY I

Students will participate in a discussion of the economic, recreational, and aesthetic importance of our local salt marsh ecosystems. The instructor will discuss canoeing skills and safety procedures. Students will then travel to the windsurfing station area at Anastasia State Park where they will practice safe canoeing techniques. Following this practice session, students will take a canoe trip up Salt Run where they will observe and discuss the recreational potential of salt marsh areas.

CPR SKILLS I AND SWIM SAFETY

Students will practice CPR techniques and first aid skills with a licensed instructor. They will display CPR proficiency through practice on mannequins and a written test. Students will also become familiar with and practice using AED's. Students will also participate in a discussion and slide presentation of hazardous marine animals (prevention and treatment). They will then take a field trip to the YMCA pool for a water safety lesson with YMCA swimming instructors. If the YMCA pool is unavailable students will travel to Anastasia State Park for water safety instruction on longshore and rip currents.

BICYCLE TRAIL RIDE, COASTAL UPLAND HABITATS

Students will discuss the various types of coastal upland habitats with an emphasis on characteristic plants and animals. Following a lesson on bicycle safety, students will travel to Princess Place Preserve where they will ride trails through the park's various upland habitats on the program's single speed beach cruiser type bikes. Students will also practice cast netting and seine netting techniques at Pellicer Creek in the park. (Students must be capable bike riders for this activity.) If it has been a while since your child has ridden a bike please practice before the program.

SHELL AND FOSSIL IDENTIFICATION

The lecture will include the Pliocene history of underwater Florida and the formation of fossils. They will then travel to the rocky, coquina beach of Washington Oaks State Park to walk the beach, collect shell fragments, and look for fossilized sharks' teeth. Upon their return to school, students will work with whole shells to identify and classify the broken remains. Students will then make a lab created example of coquina rock.

ALL CLASSES:

Students may develop skills for using various marine ecology instruments and tools such as: hydrometer, Secchi disk, Kemmerer water sampling bottle, water quality test kits, dissolved oxygen test kits, Ponar grab sampler, marine worm suction, cast and seine nets