



## Marine Conservation Homeschool 2019-2020



### Ages 9-14 • 10AM-1PM • NO Parent Participation Required

\*Always come prepared with extra clothes and shoes. We recommend a water bottle, snacks, hat, sun screen, insect repellent, and folder (to hold additional materials). To receive emails for class updates and supplemental material: please email Stephanie at [ss929@miamidade.gov](mailto:ss929@miamidade.gov)\*

### October “Ocean Life & Adaptations”

**Date:** October 2, 2019      **Activity:** Catching Critters & Fish Dissection

**Description:** We will climb into Biscayne Bay and catch sea creatures that live in the mangroves and seagrasses. The students will learn how to identify different crustaceans, fish, mollusks, marine mammals, etc. We will also dissect a fish to learn about basic ocean adaptations! (WATER CLOTHES/SHOES-SUN PROTECTION-WATER)

**Date:** October 9, 2019      **Activity:** Presentation TBD

**Description:** TBD

**Date:** October 16, 2019      **Activity:** Seastar Dissection & Bioluminescence

**Description:** We will dissect a seastar and learn about the different adaptations these invertebrates have. Then we will study how animals glow blue underwater.

**Date:** October 23, 2019      **Activity:** UM Shark Lab Tour @ UM RSMAS (FIELD TRIP)

**Description:** We will learn about the University of Miami’s shark research team by visiting their lab on campus. We will be guided by their graduate students who will explain the many methods they use for shark tagging and shark identification. If time allows, we will visit other labs/on site museums. (OUTDOORS-SUN PROTECTION)

### December “Everglades Restoration”

**Date:** December 4, 2019      **Activity:** Cutler Creek Hike

**Description:** We will hike through the upper half of Cutler Creek to see how freshwater enters Biscayne Bay. Deering Estate is a part of the Comprehensive Everglades Restoration Plan (CERP), in which we are helping to restore historic freshwater flow from the Everglades to the bay. (OLD SHOES RECOMMENDED-WE WILL BE GETTING WET)

**Date: December 11, 2019      Activity: Plant Removal & Water Quality Analysis**

**Description:** We will drive across Old Cutler to the Power's Property, aka the Pump Station. We will have a guest speaker who will talk about the creation of the pump station and its purpose in the Rehydration Project. Afterwards we will remove invasive plants and measure water quality. (OLD SHOES/CLOTHES RECOMMENDED-WE WILL BE GETTING MUDDY/WET)

**Date: December 18, 2019      Activity: Kayak through Cutler Creek**

**Description:** We will kayak through the lower half of Cutler creek to see where freshwater meets saltwater in Biscayne Bay. As we kayak through the mangroves, the students will learn about mangrove resilience and how the introduction of freshwater has changed the system. (WATER CLOTHES/SHOES-SUN PROTECTION-WATER)

## February "Ocean Pollution"

**Date: February 5, 2020      Activity: Mangrove Hike & Cleanup**

**Description:** We will hike through the mangrove forest and cleanup trash. Students will learn about the different types of trash, how it moves around the ocean, and what harm it brings to the environment. (OLD SHOES/CLOTHES RECOMMENDED-WE WILL BE GETTING MUDDY/WET)

**Date: February 12, 2020      Activity: Oil Spill Experiment & Trash Decomposition**

**Description:** We will perform two experiments: oil spill and trash decomposition. For oil spill, students will work together to build a tool to clean up a mock oil spill. For trash decomposition, we will design an experiment to measure the time it takes for different types of trash to decompose. (CLOTHES THAT CAN GET STAINED/SHOES-SUN PROTECTION-WATER)

**Date: February 19, 2020      Activity: Algae & Microorganism Identification with FIU**

**Description:** The Marine Macroalgae Research Lab will visit Deering Estate to talk about how pollution affects algal growth. Afterwards students will learn how to identify different species of algae and the microorganisms that use them as shelter. (WATER CLOTHES/SHOES-SUN PROTECTION-WATER)

**Date: February 26, 2020      Activity: Kayak to Chicken Key**

**Description:** We will kayak to Chicken Key to explore the mangrove island that lies about 1 mile off of Deering Estate's coast. (OUTDOORS-SUN PROTECTION)

## April “Importance of Long-term Research”

**Date: April 1, 2020    Activity: Fish Identification at the Power’s Property**

**Description:** We will identify different species of fish located at the Power’s Property by fishing and collecting minnow traps. Students will then measure and weigh the fish to determine how “fit” they are for survival. (FISHING ROD-WATER CLOTHES/SHOES-SUN PROTECTION-WATER)

**Date: April 8, 2020    Activity: Marine Lab Tour & Snorkel @ FIU BBC (FIELD TRIP)**

**Description:** We will learn about the different long term research projects Florida International University (FIU) is conducting at the Biscayne Bay campus (BBC). We will tour the marine labs on campus and then finish with a snorkeling trip off the coast. (SNORKEL GEAR/WATER CLOTHES/SHOES-SUN PROTECTION-WATER)

**Date: April 15, 2020    Activity: Horseshoe Crab Survey @ Chapman Field (FIELD TRIP)**

**Description:** We will learn about horseshoe crabs and their mating behavior while visiting Chapman Field Park. Horseshoe crabs mate year round, but peak during the spring. We will survey the horseshoe crabs and submit our data to the FWC database. (SNORKEL GEAR/WATER CLOTHES/SHOES-SUN PROTECTION-WATER)

**Date: April 22, 2020    Activity: Snorkeling @ Virginia Key (FIELD TRIP)**

**Description:** Our last trip will be dedicated to observing as much wildlife as possible at the beautiful historic Virginia Key. We will spend the entirety of the class snorkeling and documenting what we see. We will also compare what we see at Deering Estate to what we see while snorkeling at the beach. (SNORKEL GEAR/WATER CLOTHES/SHOES-SUN PROTECTION-WATER)