

Future Marine Scientist Academy

Spring 2024

Beginning February 2024, CBFS will be continuing our Future Marine Scientist Academy! CBFS is offering 3 local Accomack County high school students (Arcadia, Chincoteague, and Nandua) the opportunity to participate in a variety of marine and environmental science topics, as well as network and learn from a variety of CBFS staff. This is at no cost to the students. Lunch is provided as well as, transportation to and from their respective schools to our field sites. Two dates per month will be offered to students to sign up for one each month. Topics, descriptions, and schedules for each class will be listed below. These schedules are tentative and subject to change.

Any interested student must fill out an application form and provide a minimum of a 350-word response to “What in nature interests you, and why?” Each session will be capped at 20 students. It is a first come first serve basis based on applications. Applications open December 4th and will be open and accepted on a rolling basis.

Application:

The application is an online form which can be found on the website, that will be accepted on a rolling basis. Spots are limited and first come first serve, but applications will continue to be accepted. The application form and a minimum of 350-word response to the question: “What in nature interests you, and why?” must be submitted to Lexi Overdiek at programcoordinator@cbfieldstation.org to consider the application complete.

Class descriptions and tentative schedules:

February 2024: Dune and Barrier Island Ecology

Students will begin learning about barrier island formation and the ecology of various habitats on a barrier island, then focus on dune ecology. Students will discuss how dunes form, ecological succession, sediment deposition, and identification of flora and fauna in a dune ecosystem. Students will then head to Wallops Island home to NASA’s flight facility to explore a dune ecosystem.

Skills gained: understanding of barrier island formation and ecology, identification of the 4 stages of dunes, shell identification, plant identification

- February 4th and 10th
- Schedule:
 - Pick up:
 - Nandua HS- 9:45-10am
 - Chincoteague and Arcadia HS- 10:30am
 - Classroom: 11-11:30am
 - Lunch: 11:45am-12:15pm
 - Head into the field at 12:30pm

- Dune Ecology, shell identification, trash pick-up: 1-2:15pm
- Leave field by 2:30pm
- Drop off:
 - Chincoteague HS- 2:45pm
 - Arcadia HS- 3pm
 - Nandua- 3:30pm

March 2024: Micro/Macro Organism Lab with Aquarium Maintenance and Animal Husbandry

First, students will learn about plankton and what makes them so important to have healthy ecosystems. Then, students will explore and identify many organisms that have been collected using field guides, dichotomous keys, and microscopes. Students will be able to identify fish, invertebrates, zooplankton and phytoplankton.

Skills gained: safe and proper equipment use (microscopes, macrosopes) proper handling of organisms, organism identification, use of dichotomous keys, use of field identification guides

- March 3rd and 9th
- Schedule:
 - Pick up:
 - Nandua HS- 9:45-10am
 - Chincoteague and Arcadia HS- 10:30am
 - Micro and Macro Organism Lab- 11am-12:30pm
 - Lunch- 12:30-1pm
 - Aquarium Maintenance and Animal Husbandry- 1:15-2:30pm
 - Drop off:
 - Chincoteague HS- 3pm
 - Arcadia HS- 3pm
 - Nandua- 3:30pm

April 2024: Science Writing and Communication/Interpretation Skills

Students will dive into a scientific paper to begin to understand and interpret how scientific data is expressed. Students will look at graphs, visuals, and data in scientific papers and they will learn how to interpret that data. Once students have begun to interpret the data, they will learn how to communicate the results from scientific papers. Students will also practice communicating scientific terminology and data to their peers as they would to the general public.

Utilizing: I like, I wish, I wonder

Skills gained: interpretation of scientific data, tips on communication of scientific data, experience reading scientific papers

- April 7th and 13th

- Schedule:
 - Pick up:
 - Nandua HS- 9:45-10am
 - Chincoteague and Arcadia HS- 10:30am
 - Intro to scientific communication/scientific reading: 11am-12pm
 - Lunch: 12-12:30pm
 - Paper discussion/data analysis: 12:45-2pm
 - Drop off:
 - Chincoteague HS- 2:30pm
 - Arcadia HS- 2:30pm
 - Nandua- 3pm

May 2024: Oceanography Research Cruise with Coastal Ecology

Beginning in the classroom students will learn about biotic and abiotic factors of water quality and how to test it. Students will then join us on an adventure on a research vessel to discover oceanography. Students will collect water samples, test water quality, look at physical water properties, and collect organisms using a trawl net.

Skills gained: water quality testing and analysis, safe and proper equipment use (water quality testing kits, secchi disk, otter trawl net, plankton net), organism identification, proper handling of organisms, boat safety

- May 5th and 11th
- Schedule:
 - Pick up:
 - Nandua HS- 10:30am
 - Chincoteague and Arcadia HS- 11am
 - Water Quality: 11:30am-12:15pm
 - Lunch: 12:15-12:45pm
 - Classroom- Boat Safety: 1-1:30pm
 - Leave for the boat trip: 1:30pm
 - Oceanography Research Cruise: 2-4pm
 - Drop off:
 - Chincoteague HS- 4:30pm
 - Arcadia HS- 4:45pm
 - Nandua- 5:15pm