

MARINE SCIENCE

Thursdays, September 23-December 16 (no class Nov 25; 12 weeks)

12:30pm-2:00pm

Ages 11+

Students take an in-depth dive into marine science, as we study habitats, anatomy and adaptations, scientific research methods, and environmental impacts on ocean life. Each lab includes hands-on science activities and experimentation. All lab costs are included in registration fee.

Instructor: Tina Oresteen, BSc

Location: Discover Science Center Peachtree City

Course fee: \$275 OR \$25/lab

Early registration (10% off) through August 6

10% sibling discount beginning August 7

Register for full semester or individual labs.

LAB SCHEDULE:

Currents – Thursday, September 23

We begin the semester experimenting with water to investigate how salinity and temperature drive the oceans currents. Students model currents around the globe and discover the importance of currents for climate.

Plate Tectonics and the Ocean – Thursday, September 30

This week we learn how the ocean grows and changes over time. We experiment with the different phenomena that occur around the boundaries and map the different events.

Seaweed and Algae Lab – Thursday, October 7

In this lab we study the diverse groups of algae in the oceans, and their role in marine food webs, as well as habitat and nursery grounds for fish and invertebrates. Students learn about research of algal compounds in medicine, and of the nutritional value in these organisms.

Arthropods and Echinoderms – Thursday, October 14

Students study the adaptations and characteristics two phyla commonly found while beachcombing. We focus on habitats and behaviors of representatives in each group to understand their role in marine ecosystems.

Water Quality Assessments – Thursday, October 21

Marine organisms are dependent on the water they live in for all of their life's processes. This week we conduct water chemistry tests to evaluate nutrient cycling and biological filters in saltwater tanks.

Mollusc Biology – Thursday, October 28

In our Mollusc Biology Lab, we compare the biology and ecology of three common classes of mollusc – bivalves, gastropods and cephalopods. We study their role in food webs and how the diversity of body plans helps them thrive in different marine habitats.

Coral Reef Symbioses – Thursday, November 4

In this lab students investigate relationships between coral reef species, including corals and their algal symbionts, and clownfish and anemones. Students use microscopy and observation of behavior and adaptations to understand the diversity of these organisms.

Ocean Vertebrates – Thursday, November 11

This week we focus on the megafauna everyone loves to adore. Students identify different sea turtle species, learn the risks that many marine vertebrates face, and investigate the challenges scientists face in studying these animals.

Ichthyology – Thursday, November 18

We study fish families this week - how to identify them, where they live and their role in the ecosystem. Students also combine anatomy and art as they try their hand at the traditional Japanese art of fish printing: gyotaku.

Shark Research – Thursday, December 2

Students become shark biologists by learning how researchers tag and track sharks across the world, collecting and analyzing data from tagged sharks, and investigating adaptations of a spiny dogfish shark.

Shark Relatives – Thursday, December 9

We learn about the anatomy and ecology of other cartilaginous animals by comparing and contrasting them to their shark relatives and other marine vertebrates.

Ocean Exploration – Thursday, December 16

Students conduct an experiment modeling the multibeam sonar system, discover ways the ocean is explored and look at careers in the marine field.