



MARINE BIOLOGY

Tuesdays, September 13-December 13 (no class Oct 11 and Nov 22; 12 weeks)

9:30am-11:00am

Ages 11-14

Students dive in to investigate the ocean and its inhabitants. We study ocean habitats, classification of marine organisms and their anatomical adaptations, and how we can protect the oceans of the world. All lab costs are included in the registration fee.

Instructor: Q Collins, BSc

Location: STEM Lab (suite 21) - Roswell

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

10% sibling discount

Register for full semester or individual labs.

LAB SCHEDULE:

SEA SALT – Tuesday, September 13

Students investigate major physical components of ocean water and what makes it different from the water found in rivers and lakes.

CURRENTS, WAVES, AND TIDES – Tuesday, September 20

We investigate how water travels around the world, why it moves the way it does, and what forces move it around.

OCEAN EXPLORATION – Tuesday, September 27

How much do we know about the ocean? If 80% is unmapped, unobserved and unexplored how can we find out more? Students discover how scientists explore the deep ocean, and the technology it takes to get us there.

PLANKTON – Tuesday, October 4

Students explore types of plankton and how they fit into the food chain. We look at the life phases of brine shrimp and experiment with their phototactic behavior.

JELLYFISH AND THEIR RELATIVES – Tuesday, October 18

We investigate the similarities and differences between two of the classes in the phylum Cnidaria – jellyfish and coral.

CRUSTACEANS – Tuesday, October 25

This week, we'll explore the largest phylum in the animal kingdom. We investigate the external and internal anatomy, and study their adaptations of arthropods to see what makes them so successful.

SEA STARS AND URCHINS – Tuesday, November 1

Students investigate what makes sea stars and sea urchins unique. We explore where echinoderms live, what they eat, and how they behave to see how these animals fit into the ecosystem.

MOLLUSCS – Tuesday, November 8

This week, we compare the biology and ecology of three common classes of molluscs – 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.

FISH IDENTIFICATION – Tuesday, November 15

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

SHARK SCIENCE – Tuesday, November 29

Students become shark biologists by learning how researchers tag and track sharks across the world, studying their teeth to learn about their diet, and investigating adaptations of a preserved spiny dogfish shark.

SHARK RELATIVES – Tuesday, December 6

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

PROTECTING OUR OCEANS – Tuesday, December 13

We study impacts on marine ecosystems, investigate how we can protect our oceans and their inhabitants, and design engineering strategies to effectively clean an oil spill.