



BAILEY-MATTHEWS
**NATIONAL
SHELL
MUSEUM**

2023-2024

K-12 Programs

The Bailey-Matthews National Shell Museum is a natural history museum and aquarium that offers exceptional science-based experiences for students at all grade levels. Participants will explore the amazing world of mollusks, their shells, and related marine life.

In 2023-2024, as the Museum continues to rebuild from the impact of Hurricane Ian, the Museum is glad to offer learning objectives-based **outreach** and **online** programs as described below. We will again offer field trip experiences at a time TBA in 2024.

Programs align with Florida's Next-Generation Sunshine State Standards for science. Students receive their own shell identification guide and shell to keep.



THESE KEY LEARNING OBJECTIVES ARE MET BY ALL PROGRAMS OFFERED:

- K** Compare and contrast mollusk species by making observations using 4 of the 5 senses.
- 1st** Use 4 of the 5 senses to make and record observations of both living and non-living mollusks.
- 2nd** Describe the major life cycle stages of a Florida native mollusk.
- 3rd** Explain characteristics of invertebrates, recognize that mollusks are invertebrates, and classify mollusks into different classes.
- 4th** Explain how energy is transferred from the Sun through a food chain, and that animals obtain energy from the plants and/or animals they eat. Recognize ways plants and animals can impact the environment (including humans).
- 5th** Compare and contrast the physical structures and function of organs of mollusks.

FEES AND SCHOLARSHIP FUNDS

Program prices vary. Scholarship funding for programs and transportation is available on a first-come, first-served basis with a priority for Title I schools in Lee and Collier counties. **In 2022-2023, the Museum covered the costs of 100% of programs for Lee and Collier county schools.**



Guided Field Trips

Students explore aquariums of live mollusks and marine life, touch local mollusks in touch pools, explore the Great Hall of Shells, and participate in fun and interactive activities. **Guided field trips are temporarily suspended while the Museum rebuilds from Hurricane Ian.**



Mollusks on the Move

We bring the mollusks to your classroom! Hands-on programs introduce students to mollusks' anatomy, growth, diet, reproduction, and their role in the ecosystem. These experiences include touching live mollusks and last 30-60 minutes. Students each receive a shell identification guide and a shell to keep.



Mollusks Online

Our marine biologists bring the wonders of shells and mollusks virtually to your classroom! Programs introduce aspects of a mollusks' life, including anatomy, growth, diet, reproduction, and their role in the ecosystem. Programs last approximately one hour, and are offered via Zoom and WebEx.

PROGRAM DESCRIPTIONS AND STANDARDS BY GRADE: (grades 6+ available upon request)

K-SC.K.L.14.1, SC.K.L.14.2, SC.K.L.14.3:

Students observe and explore mollusks using four out of the five senses! Activities are designed to introduce students to mollusks and answer basic questions about their shell, diet, and ecosystem.

1-SC.1.L.14.1, SC.1.L.14.3, SC.1.L.17.1:

Ever wondered what different mollusks need to survive? This program will help students differentiate between living and nonliving mollusks, as well as identify what mollusks need to survive through observation.

2-SC.2.L.16.1:

Students will learn about the life cycle of mollusks that live at the Museum, including the Lightning Whelk. Hands-on activities give students an opportunity to see different stages of the life cycle while exploring the Museum.

3-SC.3.L.15.1:

Students dive deeper into the taxonomy of mollusks through scientific observation and the use of a dichotomous key to differentiate between classes and species. This program will also introduce students to food webs and the importance of mollusks within them.

4-SC.4.L.17.2, SC.4.L.17.3, SC.4.L.17.4:

The mollusks that call the Museum home are an important part of the food web. In this program, students explore all corners of the Museum to interact with food webs, gain knowledge about mollusk adaptations, and review animal classification.

5-SC.5.L.14.2, SC.5.L.17.1:

Students will learn about the adaptations of several different mollusks including Giant Pacific Octopus, Queen Conch, and Giant Clam by observing living mollusks and playing interactive games.

K-SC.K.L.14.1, SC.K.L.14.3:

Students learn the basics of what a mollusk is, read a story about different mollusks, and are introduced to different species. Students then explore the shells of mollusks using four senses.

1-SC.1.L.14.1, SC.1.L.14.3, SC.1.L.17.1, SC.1.N.1.1, SC.1.N.1.2, SC.1.N.1.3:

Students differentiate between living and nonliving mollusks and make qualitative observations of both living and nonliving mollusks using 4 of the 5 senses.

2-SC.2.L.16.1:

Meet Shelley the Queen Conch! In this interactive story, students watch Shelley's journey through the Caribbean Sea, learning about the life cycle of Queen Conchs and other gastropods.

3-SC.3.L.15.1:

Students receive an introduction to taxonomy, learn about different classes of mollusks, and identify shells. Students will sort various shells into the mollusk classes before identifying each one.

4-SC.4.L.17.2, SC.4.L.17.3, SC.4.L.17.4:

Ever wondered what it's like to be a part of a mangrove ecosystem? Each student will become a plant or an animal (including mollusks) that are native to the southwest Florida mangrove habitat. Students will learn what role their animal plays in the food web and what role disturbances (human or non-human) play.

5-SC.5.L.14.2:

Students gain a more in-depth understanding of mollusks and their anatomy in this program. They will watch living mollusks and make qualitative observations about them. By sharing their observations with their classmates, they are able to compare and contrast the anatomy of different species.

K-SC.K.L.14.2, SC.K.L.14.3:

Students are introduced to what it means to be a mollusk in this virtual story! They will learn about a few mollusk characteristics before witnessing those characteristics of mollusks that are at the museum.

1-SC.1.L.14.1, SC.1.L.14.3, SC.1.L.17.1:

Students will learn the basics about mollusks and their shells, and get an up-close view of some of the mollusks that call the museum home. Students will discover both the living and nonliving things mollusks need to survive.

2-SC.2.L.16.1:

Learn about the journey of Shelley the Queen Conch as she navigates through the seagrass beds of the Caribbean Sea. In this virtual story, students learn about the life cycle of Queen Conchs.

3-SC.3.L.15.1:

Students will dive deeper into the characteristics of gastropods and bivalves. They use those characteristics to distinguish and sort multiple specimens before identifying them.

4-SC.4.L.17.2, SC.4.L.17.3, SC.4.L.17.4:

Ever wonder what role mollusks play in the ecosystem? During this presentation, students will discover just that! Mollusks are an important part of many food webs, and their role is demonstrated in a southwest Florida estuary food web.

5-SC.5.L.14.2, SC.5.L.17.1:

The anatomy of four different mollusk classes are identified through diagrams, photos, and videos in this presentation.