



Estuary Explorers Program Overview

Focal Points

- Biodiversity
- Estuarine Ecology
- Adaptations

Jr. Living Lab Series

Program synopsis

This program covers the importance of estuaries, the habitats found within the estuarine system, and the [animals that call these habitats home](#). Students will learn about adaptations, species within our estuary, and the human connections to the estuary with a focus on species found at the GTM Research Reserve. Rotations include **Plankton Races**, **Exhibit Hall Scavenger Hunt**, and the **Animal Discovery Room** rotation with an introduction to a diamondback terrapin, and other estuary biofacts.

Program Time - 2 hours 10:00 A.M. - 12:00 P.M.

Group Size - Minimum 10 students and maximum 25-30 students

Grades Recommended - Elementary 1st - 5th

Vocabulary ([Quizlet](#) included in email)

Adaptation - a trait that helps an organism survive and reproduce

Biodiversity - the variety of life in the world or in a particular habitat or ecosystem

Brackish - slightly salty, as is the mixture of river water and seawater in estuaries

Producer - an organism that can make its own food and serves as a food source for herbivores and omnivores

Consumer - an organism that obtains energy by feeding on other organisms

Decomposer - an organism, especially a soil organism, that decomposes organic material

Ecosystem - a biological community of interacting organisms and their physical environment

[Estuary](#) - where the river meets the sea

Food chain - series of steps in which organisms transfer energy by eating and being eaten

Food web - a community of organisms where there are several related food chains

[Phytoplankton](#) - plankton that photosynthesize and gain energy from the sun

[Plankton](#) - organisms drifting or floating in the water, consisting chiefly of diatoms, protozoans, small crustaceans, and the eggs and larval stages of larger animals.

Zooplankton - plankton consisting of small animals and the immature stages of larger animals.

1st	2nd	3rd	4th	5th
<u>SC.1.L.14.1</u>	<u>SC.2.L.17.1</u>	<u>SC.3.L.15.1</u>	<u>SC.4.L.16.1</u>	<u>SC.5.L.15.1</u>
<u>SC.1.L.14.3</u>	<u>SC.2.L.17.2</u>	<u>SC.3.L.17.2</u>	<u>SC.4.L.17.2</u>	<u>SC.5.E.7.3</u>
<u>SC.1.L.17.1</u>	<u>SC.2.E.6.2</u>	<u>SC.3.N.1.1</u>	<u>SC.4.L.17.3</u>	<u>SC.5.L.17.1</u>
<u>SC.1.E.5.4</u>	<u>SC.2.E.7.2</u>	<u>SC.3.N.1.2</u>	<u>SC.4.L.17.4</u>	<u>SC.5.N.1.3</u>
<u>SC.1.N.1.1</u>	<u>SC.2.N.1.1</u>		<u>SC.4.N.1.1</u>	
<u>SC.1.N.1.2</u>	<u>SC.2.N.1.2</u>		<u>SC.4.N.1.8</u>	

Learning Objectives:

- Define estuary.
- Identify animals of the estuary.
- Understand the levels of a food chain.
- Explain how estuaries are important.
- Know the difference between phytoplankton and zooplankton.
- Describe an adaptation of terrapins that enables them to survive.
- Recognize that living things are only able to live in habitats that meet its needs.
- Compare and contrast adaptations displayed by animals that enable them to survive in different environments.