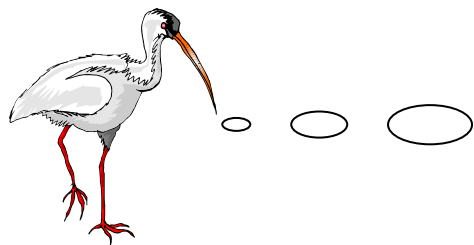


# Curriculum Guide Pre and Post Activities



Grades  
3-5

## Introduction

Welcome to The Florida Aquarium! This guide is designed to help you utilize your time efficiently and get the most out of your field trip experience. The following pages will provide you with suggestions for pre- and post-visit activities, in addition to things you can do while at The Florida Aquarium.

Use The Florida Aquarium to introduce students to “The Florida Water Story.” Trace a drop of rain beginning in the *Wetlands Gallery* as it travels from freshwater streams and rivers, to estuaries and beaches, and finally out to the coral reefs, and the open ocean. With The Florida Aquarium as your guide, explore these individual habitats and learn about the many different plants and animals that live there.

**Aquarium Classes:** Supplement your visit with one of our school programs!

- It’s Great to Be Different (classroom or auditorium)
- The Inside Story: Behind the Scenes Tour
- Exploring the Bay (5<sup>th</sup> grade)

**Traveling Programs: Bring the program to you!**

- Adaptive Advantage
- Basic Beach Biology
- Aquatic Field Study
- Sharks!
- Wild Wetlands

### Vocabulary to Consider

- **Adaptation** – A body part or behavior that helps an organism survive in its habitat.
- **Biodiversity** – The variation of life forms within an ecosystem
- **Camouflage** – Behavior and or markings designed to disguise or hide.
- **Ecology** – The relationship between organisms and their environment.
- **Ecosystem** – A community of living things and their environment interacting together.
- **Estuary** – A semi-enclosed body of water in which freshwater from rivers and streams mixes with salt water from the ocean.
- **Exotic Species** – A non-native species that is not reproducing in the environment.

- **Food Web/ Food Chain** – A way of describing the complex relationships between organisms and what they eat.
- **Habitat** – A place where plants and animals live. It provides food, water, shelter, and space.
- **Invasive Species** – A non-native species, often with no natural predators, that disrupts the natural ecosystem, causing potentially significant ecological and economic impacts.
- **Invertebrate** – An animal without a backbone.
- **Plankton** – Organisms that are carried around by ocean currents, rather than swimming to determine their course; consists of phytoplankton (plant plankton) and zooplankton (animal plankton).
- **Vertebrate** – An animal with a backbone.
- **Wetland** - an area of land consisting of [soil](#) that is [saturated](#) with [moisture](#), such as a [swamp](#), [marsh](#), or [bog](#).

The key to getting the most out of your visit to The Florida Aquarium is to come prepared. By discussing relevant topics and incorporating fun and interesting activities into your classroom, students will better appreciate what they see at the Aquarium.

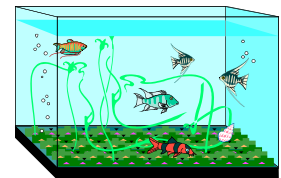
## Pre-Visit Suggestions

- How can you conserve water? Discuss the concept of a watershed, and create your own. (1) Take a piece of paper, fold in half, and open (2) Crumble paper (3) Gently open paper (4) Using water-based markers, mark high points with one color and low points with another color (mountain tops and valleys) (5) After all high and low points are marked, gently spray with water. The watershed is created when the colors run to the larger body of water (the first crease that was made in the paper when it was folded in half).



- Prepare to visit our estuary by visiting a virtual one at [www.estuarylive.org](http://www.estuarylive.org).
- Go on an imaginary scuba dive!
  - Teach the students common dive signs for some of the animals they will see throughout the Aquarium.

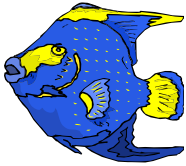
- Put a fish tank in your classroom. Have students learn about the fish and take turns caring for them. While at The Florida Aquarium, visit Aquariumania and see the many possibilities for home fish tanks.



- Have students write a letter to their favorite sea creature asking whatever questions may come to mind. Then, have each student choose one of the letters

out of a hat. After doing some quick research, write back to the student and answer the questions posed as though you were that sea creature.

- Divide the class into 3 habitats: Wetlands, Beach, and Coral Reef. Have each group research the particular habitat and present information to the class. This will allow students to become familiar with the types of plants and animals they will see at the Aquarium.

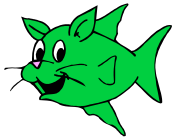


- Become an expert on a particular reef fish. Draw a picture or cut one out of a magazine. On the back of the paper, list some interesting facts about the fish. Have students share what they have learned and see how many of the fish they can find while visiting the Aquarium.

Now that students are familiar with the types of things they might see at The Florida Aquarium, it is time to get up close and personal. There are all sorts of programs to see and activities to do while on your field trip!

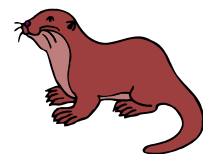
## While You Are Here

- Find three different animals with camouflage. How does camouflage help them? Find three animals that are not well camouflaged. How do they protect themselves?



- See how many fish you can find that are named after land animals?
- Join us for an interactive dive adventure in our 500,000 gallon coral reef exhibit. Here you will buddy-up with a diver and explore the reef, identifying fish, looking for lost treasure, and learning how you can help protect the reef and all of its wonder
  - 11:00 and 2:00 daily (show times are subject to change)

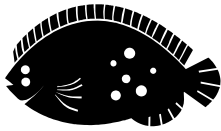
- Observe the river otters. What are they doing? Are they playing, eating, grooming or sleeping? Consider why a furry animal that lives in hot and humid Florida has such a thick fur coat.
  - Basics of Otterology – 2:30pm



- Check out our newest exhibit, *Ocean Commotion*. Explore the wonders of the deep through touch on our large interactive ocean wall, and meet some of our newest inhabitants. Don't forget to vote for your favorite Ocean Commotion character as you leave! If you have a smart phone you can access our gallery podcasts within the exhibit at this link:

<http://sealife.flaquarium.org/Zones/OC/index.aspx?AspxAutoDetectCookieSupport=1>

- Feeling like you want to get up close and personal with some of our animals? Visit our touch tanks and compare and contrast the texture of the animals.
- Consider stopping by an animal show or two.  
(Show times are subject to change)
  - Penguin Promenade – 10:00am or 3:00pm
  - Truth or Tails – 11:30am

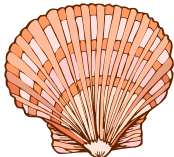


- Go on a scavenger hunt. How many reptiles can you find in the *Wetlands Gallery*? How many different species of shark can you find throughout the Aquarium? How many different species of seahorse can be found in *Dragons Down Under*? Print out one of ours from the exhibits section of our web site, or make up one of your own.

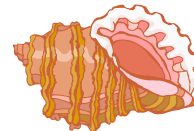
Now is your chance to build on the concepts discussed before your visit to The Florida Aquarium. Take this opportunity to further explore the many different plants, animals and habitats you discovered on your field trip.

## Back in the Classroom

- Discuss how saltwater and freshwater differ. Make a Venn Diagram to compare them. Label one circle freshwater and the other circle saltwater. Under each heading list characteristics of that type of water. In the space where they overlap, list how they are similar.




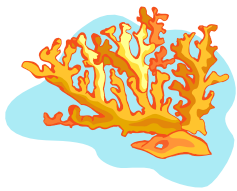
- Learn about classification. Make a kit of shells for each group of students. Instruct the students to examine the shells, observing texture, shape, pattern and structure. Ask them to create a system of grouping the shells (classifying). After they classify them, have students name each category, and write a description of the features of each category.



- Make an edible estuary! Have students place limestone (vanilla wafers or sliced sponge cake) in the bottom of a baking dish; make a second tier over a 1/3 of the dish to create a slope. This represents the gradient from the shore into deeper parts of the estuary. Have students pour sediment (instant chocolate pudding) over the wafers. Allow students to add the other components of the estuary in the appropriate locations:



- Sand (yellow sprinkles) along bank of estuary
- Seagrass (coconut with green food coloring) scattered over shallow bottom of estuary

- Snails (chocolate chips) in seagrass and around edges of bank
  - Oysters (oyster crackers) in patchy groups in sediment
  - Starfish (pretzels broken into pieces and arranged like arms) in seagrass or on sandy patches
  - Fish (gummy candy or crackers) and shrimp (golden raisins) scattered around estuary
- Now that you have seen our sharks up close, discuss why sharks need protection and how people can help conserve them. 
  - All of the coral you saw in the *Coral Reef Gallery* was man-made. Discuss why the Aquarium does not use live coral in its large exhibit. What makes coral so special that we need to protect it? 
  - Have students create a story of their own using an animal that they found interesting at the Florida Aquarium. Make it more exciting by challenging the students to create choices throughout their story that will lead them to different outcomes.