

## MAP OF MOBILE BAY

To be completed *BEFORE* your visit.

*Label North, South, East, and West.*

*Label these locations around coastal Alabama:* Dauphin Island, Gulf of Mexico, Mobile Bay, Ft. Morgan Peninsula, Mobile Delta

*Label where you would find these salinities:* freshest water, saltiest water, brackish water.



# At the Estuarium

6<sup>th</sup> - 8<sup>th</sup> Grade Activity

Name: \_\_\_\_\_

## What is the Estuarium?

The Estuarium is an aquarium exhibiting plants, animals, and habitats of coastal Alabama. An *estuary* is a place where fresh water from land mixes with salt water from an ocean. Your visit through the facility will take you from the fresh water *delta* to the salty Gulf waters.

*This worksheet is divided into the galleries that you will find as you tour the Estuarium. Read the panels, observe the tanks, and ask docents and staff to help you find the answers.*

## Entrance

1. Mobile Bay is the \_\_\_\_\_ largest estuary system in the United States.

## Mobile Delta Gallery

1. **Before the Delta:** List several things mosasaurs are supposed to have eaten.  
\_\_\_\_\_

2. At the largest tank in the Delta Gallery, you will observe a swamp scene. Swamps are dominated by trees. Name one common tree in the swamp. \_\_\_\_\_

3. Name three benefits of the wetland filtration system. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Why are sturgeons, gars, and bowfins considered "living fossils?" \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. What are invasive species? \_\_\_\_\_

\_\_\_\_\_ Name two invasive species that have been introduced into the Southeastern U.S. \_\_\_\_\_

What is the approximate dollar value of the damage done by invasive species?  
\_\_\_\_\_

## Mobile Bay Gallery

1. Why is Mobile Bay so "dirty?" \_\_\_\_\_  
\_\_\_\_\_ What effect does this have on the health of the bay? \_\_\_\_\_  
\_\_\_\_\_
2. Name a vertebrate and an invertebrate you found interesting on the Touch Table. What did you find interesting about each of these animals?  
Vertebrate: \_\_\_\_\_  
\_\_\_\_\_  
Invertebrate: \_\_\_\_\_  
\_\_\_\_\_
3. Find the largest tank of the Mobile Bay Gallery. The poles in this tank represent what structure? \_\_\_\_\_ When was it lit for the first time? \_\_\_\_\_ It was manned until what year? \_\_\_\_\_
4. What happens during a jubilee? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. Why are sea grass meadows shrinking? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
What impact does this loss have on humans? \_\_\_\_\_  
\_\_\_\_\_  
What can humans do to help halt this loss? \_\_\_\_\_  
\_\_\_\_\_

## Barrier Island Gallery

1. Below is a cross section of a barrier island. Label the following habitats:

*beach freshwater wetland dune maritime forest salt marsh*

Label one plant or one animal that can be found in each of the above habitats.



2. Name three man-made structures intended to protect property from coastal erosion. \_\_\_\_\_ What problem(s) do they create? \_\_\_\_\_
- \_\_\_\_\_ What is another (non-structural) remedy people have tried? \_\_\_\_\_ How effective is it?
- \_\_\_\_\_

## Gulf of Mexico Gallery

1. What is the name of the heaviest *bony* fish? \_\_\_\_\_  
What is unusual about its body? \_\_\_\_\_
2. Observe the octopus. The large, bulbous *mantle* above the octopus' eyes contains what? \_\_\_\_\_
3. What is sargassum? \_\_\_\_\_ How does it serve as a "mobile home?" \_\_\_\_\_  
\_\_\_\_\_
4. Look above you. What three things are carried by the pipes running throughout the Estuarium? \_\_\_\_\_ Where do the pipes deliver what they are carrying? \_\_\_\_\_
5. **Underwater Exploration:** What does SCUBA stand for? \_\_\_\_\_  
\_\_\_\_\_ What year was scuba developed?  
\_\_\_\_\_ And by whom? \_\_\_\_\_

### 1. **The Weather Station:**

Record these current weather conditions:

Air Temperature _____	Water Temperature _____
Dissolved Oxygen mg/L _____	Salinity _____
* Don't forget to include units of measure.	

Would you expect the salinity to be higher on the north side of Dauphin Island, or on the south side? \_\_\_\_\_ Why? \_\_\_\_\_  
\_\_\_\_\_

1. **Oil Spill:** Which habitat, beach or salt marsh, is more vulnerable to an oil spill?

\_\_\_\_\_ List two reasons why. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## The Living Marsh Boardwalk

The living marsh boardwalk is located outside the Estuarium. This area was once the site of a sewage-septic tank used by the Air Force. In 1993 the Dauphin Island Sea Lab removed the septic tank and rebuilt the marsh. Use the panels and audio kiosks on the boardwalk and your own observations to answer the following questions.

1. What are the two dominant plants in the salt marsh? \_\_\_\_\_  
\_\_\_\_\_
2. What animal makes a daily migration up and down these marsh plants? \_\_\_\_\_  
\_\_\_\_\_ Where would you find it at high tide? \_\_\_\_\_  
\_\_\_\_\_ Why? \_\_\_\_\_  
\_\_\_\_\_
3. What are two functions that barrier islands perform? \_\_\_\_\_  
\_\_\_\_\_
4. As you look *east* across Mobile Bay, what large man-made structure do you see?  
\_\_\_\_\_ What type of natural resource is this structure extracting deep beneath the bay's surface? \_\_\_\_\_
5. What is marine debris? \_\_\_\_\_  
How does eating plastic kill an animal? \_\_\_\_\_  
\_\_\_\_\_

## **Invertebrate Trail**

In the space below, make a rubbing of your favorite invertebrate from the Invertebrate Trail.