Eco-Explorers Virtual Field Trip

Aquatic Resources Education Center, 2520 Lighthouse Road, Smyrna, DE 19977

Field Trip Report

Name_____ Date_____

School_____ Teacher_____

Did you have a chance to watch all the videos? (yes or no) _____

Did you have a chance to look at all the PowerPoints? (yes or no) _____

A. List at least three living things you learned about that can be found in the tidal salt marsh. Explain how each of these living things can meet its needs in the salt marsh.

	Living Thing	**How does it meet its needs in the marsh**
example	**Grass shrimp**	**They have a clear body so that it is hard for fish to see them; they have gills to get oxygen under the water.**
1	Various answers	The answers are found in the Macro Identification Cards, Plant Identification Cards, Keyed Fish Slides, or Mammals in the Tidal Salt Marsh and in Your Neighborhood.
2		
3		
4		

B. Give two examples of adaptations that help plants survive in the tidal salt marsh.

Salt marsh cordgrass has glands on its leaves through which it can get rid of excess salt.

Many plants in the tidal salt marsh have rhizomes that help anchor them in the soil and allow them to send up new shoots.

High tide bush has thick waxy leaves that helps it conserve water.

Check plant information cards for more.

C. Pick one of the water quality indicators you learned about (pH, salinity, turbidity or dissolved oxygen) _____

D. Give an example of how this indicator affects living things in the salt marsh.

pH – Answer could mention that most aquatic organisms need a pH that is not too far from neutral.
salinity – Answers could mention that plants, macros and fish need to be adapted to survive in water that contains salt.
turbidity – Answers could mention that very turbid water does not allow sunlight to reach underwater plants, this could lead to less food and less oxygen - High turbidity makes it more difficult for predators to spot prey.
dissolved oxygen - Answers could mention that most living things need oxygen, different aquatic organisms have different needed levels of D.O.

E. Describe how the tides carry water into the tidal salt marsh. Make sure you mention what type of water comes in with the tides.

Answer should touch on some of these concepts: There are two high tides each day in the tidal salt marsh. Water from the bay flows up the streams and into the marsh. When the tides come in, they bring water from the bay that has salt in it. This water mixes with water already in the marsh and the mixture of fresh water and salty water is called brackish water. After high tide, the water starts flowing back out to the bay, and then there will be a low tide.

F. Circle the example below that correctly shows how energy flows through the salt marsh ecosystem.

detritus → *raccoon* → *cordgrass* → *sun* → *fiddler crab*

sun → *cordgrass* → *fiddler crab* → *detritus* → *raccoon*

sun → *cordgrass* → *detritus* → *fiddler crab* → *raccoon*

G. Give another example that shows the flow of energy in the salt marsh

(sun) → *(name of plant)* → *(detritus)* → *(name of primary consumer)* → *(name of secondary consumer)*

H. Match the following types of organisms with their definition:

__c__ Producer	a. eats plants
__a__ Primary Consumer	b. breaks down dead plant and animal matter
__d__ Secondary Consumer	c. makes its own food
__b__ Decomposer	d. eats other animals

I. What is detritus made up of? Why is it important?

Detritus is made of decaying plants, decaying animal matter and bacteria. It is important because it provides energy to many organisms such as fiddler crabs, grass shrimp and worms.