

## Lower Ocean Gallery Exhibit:

What is an artificial reef? List one reason they are beneficial:

An artificial structure that is sunk into the ocean to create a habitat for marine life. They are beneficial because they create habitats for living things.

What is a Marine Protected Area (MPA)? List one reason they are beneficial:

An area in the ocean that is protected by law in order to keep the habitat and animals safe from human activity. They are beneficial because they protect species and habitats that are in need of extra protection from overfishing and/or habitat destruction.

Lionfish are invaders. Even though they are beautiful, they should not be in the waters of South Carolina. Explain why they are invasive:

Lionfish have no natural predators in South Carolina; without natural predators, their populations grow out of control and drive native fish out of their homes.

## Zucker Family Sea Turtle Recovery™

There are seven sea turtle species in the world. Four of those seven live off the coast of South Carolina. Match the sea turtle species to the correct fact.

Sea Turtle Species	Sea Turtle Fact
Green sea turtle	Most endangered sea turtle in the world
Kemp's ridley sea turtle	Most common nesting sea turtle in the world
Leatherback sea turtle	Only sea turtle that eats sea grass
Loggerhead sea turtle	Largest sea turtle in the world

List two ways humans can harm sea turtles:

- Answers vary; boat strike,
- pollution (chemicals, litter), fishery entanglements (ropes, fishing line), fishhooks

List two things humans can do to protect sea turtles:

- Answers vary; don't litter, pick up
- trash, recycle, use a circle hook when fishing in ocean, use canvas bags instead of plastic, reduce single-use plastics (forks, straws, lids), careful boating and fishing

## Aquarium Wrap Up

Now that you have traveled throughout the state of South Carolina, list two things you can do to protect South Carolina habitats and the animals that live there.

Answers vary; recycle, don't litter, pick up trash, use canvas bags instead of plastic, use reusable bottles, reduce single-use plastics like forks and straws, join a conservation organization

# 9th–12th Grade Scavenger Hunt

## HIGH SCHOOL

Name: Answer Key

## All Galleries

Match the following terms to the correct relationship and list the Aquarium exhibit in which the bolded animal is found.

- A Predation** – to eat another organism
- B Competition** – to fight for a resource
- C Parasitism** – when an organism lives on or in another organism at that organism's expense
- D Mutualism** – when two organisms live together and both benefit
- E Commensalism** – when one organism benefits from another organism and the other neither benefits nor suffers

Place correct letter here	Description of Relationship	Aquarium Exhibit
D	Hermit crab anemones live on hermit crabs in order to find food and hitch a "ride." <b>Hermit crabs</b> don't mind at all because the anemone offers protection.	Boneyard Beach
A	<b>Bald eagles</b> prey on brook trout in mountain streams.	Mountain Forest
E	Some <b>horseshoe crabs</b> have slipper shells living on them. It does not harm the horseshoe crab, but the slipper shells have a safe home on the hard shell of the horseshoe crab.	Boneyard Beach, The Shallows
B	Male <b>bluegill sunfish</b> fight with fish in order to protect their gravel nest.	Blackwater Swamp
C	Tapeworms live inside a <b>sea turtle's</b> digestive system causing damage by stealing the turtle's nutrition.	Zucker Family Sea Turtle Recovery™
D	<b>Porkfish</b> are cleaner fish. They eat old scales and debris off larger fish like gag grouper. Gag grouper don't mind this because it keeps them healthy.	Great Ocean Tank, Rocky Reef, Carolina Seas
E	A <b>gopher tortoise</b> can dig a 30-foot burrow for shelter. Many other animals can hide in these burrows during forest fires and the tortoise will share the space.	Longleaf Pine Forest

## Mountain Forest

### Bald Eagle Exhibit:

In 1967, bald eagle populations declined because of DDT. What is DDT and how did it affect the eagles?

DDT is a pesticide that thinned the lining of the eagle eggs causing them to crack and causing the babies to die. This decreased populations over time.

What is bioaccumulation?

When something doesn't break down in an environment, but instead amplifies inside an animal's body.

Thinking Question: What can we learn from the DDT/eagle issue?

We need to be very careful with the chemicals we release into our environment to ensure the safety of habitats and the animals that live in them. We need to remember that we can harm the earth by our actions.

## Piedmont

### Reservoir Exhibit:

Name two pros of damming a river:

1. Answers vary; flood control, irrigation, fishing, recreation, boating
- 2.

## Coastal Plain

### Brownwater Swamp and Blackwater Swamp Exhibits:

What makes a brownwater swamp brown?

Red clay sediment and silt from the piedmont are carried by rainwater into the coastal plain swamps during the rainy season.

What makes a blackwater swamp black?

Tannins from tree leaves stain the water a darker color; the leaves fall into the swamps and the tannic acid leeches into the water.

### Swamp IQ Test:

List two reasons why swamps are vital ecosystems in South Carolina:

1. Answers vary; great habitats for animals and plants, filters water to help
2. get rid of pollutants, helps control flooding

### Carolina Bay Exhibit:

Why are carnivorous plants found in Carolina bays?

Carnivorous plants live in areas where the nutrient level in the soil is low. These plants get nutrients by digesting insects.

## Saltmarsh Aviary

### Saltmarsh Aviary Exhibit:

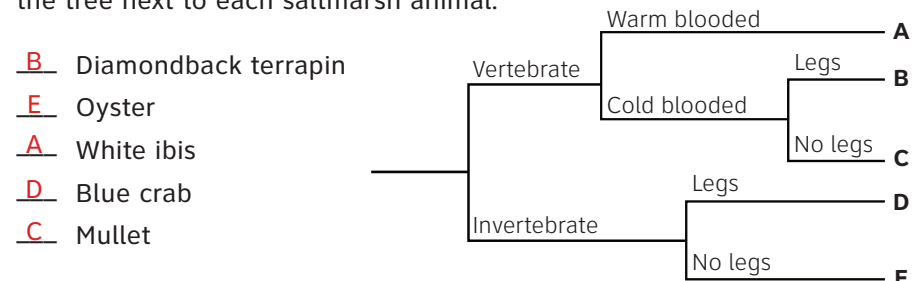
Name two functions of a saltmarsh:

1. Answers vary; acts as a sponge to absorb water and prevents flooding,
2. filters pollutants from water and land, shield land from wave action and storms

Thinking Question: What would happen to South Carolina's coast if our saltmarshes were destroyed?

The coastline would be unprotected during hurricanes and storms, causing habitat destruction.

A phylogenetic tree shows the relationships between biological species based on their similarities and differences. Place the correct letter from the tree next to each saltmarsh animal.



## Coast

### Boneyard Beach Exhibit:

What is a boneyard beach?

A beachscape lined with remnants of fallen and bleached trees.

What are some factors that transform these beaches?

Answers vary; time, tides, currents, sun, storms, island migration

## Ocean

### Great Ocean Tank Exhibit:

The International Union for Conservation of Nature (IUCN) lists animals based on their conservation status. Use the touch screens at the Great Ocean Tank to find three animals for each of these conservation statuses:

**Near Threatened (NT):**

1. Queen triggerfish
2. Red grouper
3. Blacktip shark

**Vulnerable (VU):**

1. Loggerhead sea turtle, sandbar shark
2. Vermillion snapper, sand tiger shark
3. Tarpon, grey triggerfish

Thinking Question: How is this information helpful to humans?

Policies on overfishing and habitat protection can be determined based on this information. We can be better equipped to make decisions about wildlife protection.