

9th–12th Grade Scavenger Hunt

Answer Key

The South Carolina Aquarium is designed to show you the habitats of South Carolina from the Mountains to the Sea. Head up the escalator to start your journey through our state! This information is helpful:

- Answers for **page 1** are found in no certain order.
- Answers for **pages 2-4** can be found in order by starting in the mountains and walking to the sea.

All Galleries

Match the following terms to the correct relationship and list the Aquarium exhibit in which it was the bold 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 organisms' expense
D **Mutualism** – when two organisms live together and both benefit
E **Commensalism** – when one organism benefits from another organism and the other doesn't benefit or suffer

| <i>Place correct letter here</i> | Description of relationship | Aquarium exhibit |
|----------------------------------|---|--|
| D | Hermit crab anemones live on hermit crabs in order to find food and have a 'ride.' Hermit crabs don't mind at all because the anemone offers protection. | Touch Tank |
| A | Bald eagles prey on brook trout in mountain streams. | Mountain Forest |
| E | Some horseshoe crabs 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. | Touch Tank, The Shallows |
| B | Male dollar sunfish fight with fish in order to protect their gravel nest. | Brownwater Swamp |
| C | Tapeworms live inside a sea turtle's digestive system causing damage by stealing the turtle's nutrition. | Zucker Family Sea Turtle Recovery™ |
| D | Porkfish are cleaner fish. They eat old scales and debris off larger fish like a gag grouper. Gag grouper don't mind this because it keeps them healthy. | Great Ocean Tank, Rocky Reef, Carolina Seas |
| B | Spiny lobsters are territorial of their homes often aggressively guarding their homes from fish and other lobsters. | Bottom Dwellers |
| E | A gopher tortoise 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 |

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The Mountains

Bald Eagle exhibit:

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

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

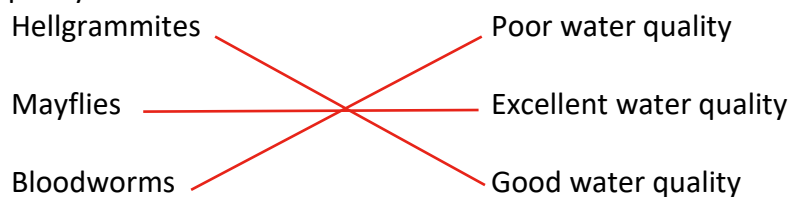
Name two pros and two cons of damming a river.

Pro: 1) Flood control, irrigation, fishing, recreation
2) Boating

Con: 1) Disturbs river flow
Disturbs animal migration
2) Habitat destruction, changes landscape

Shifting Shorelines exhibit:

Aquatic insects can tell us a lot about the health of a water ecosystem. Match the aquatic insect to the correct water quality.



Thinking question: How could you use the above information to help you find the best fishing river?

Fish in stream where "good-excellent" water quality aquatic insects can be found. Find them by looking under the rocks.

Coastal Plain

Swamp IQ Test:

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

- Great habitat for animals and plants
Filters water to help get rid of pollutants
Helps control flooding
- Answers can be many. These are a few.

Carolina Bay exhibit:

Why are carnivorous plants found in Carolina bays and no other habitat in South Carolina?

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

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Saltmarsh

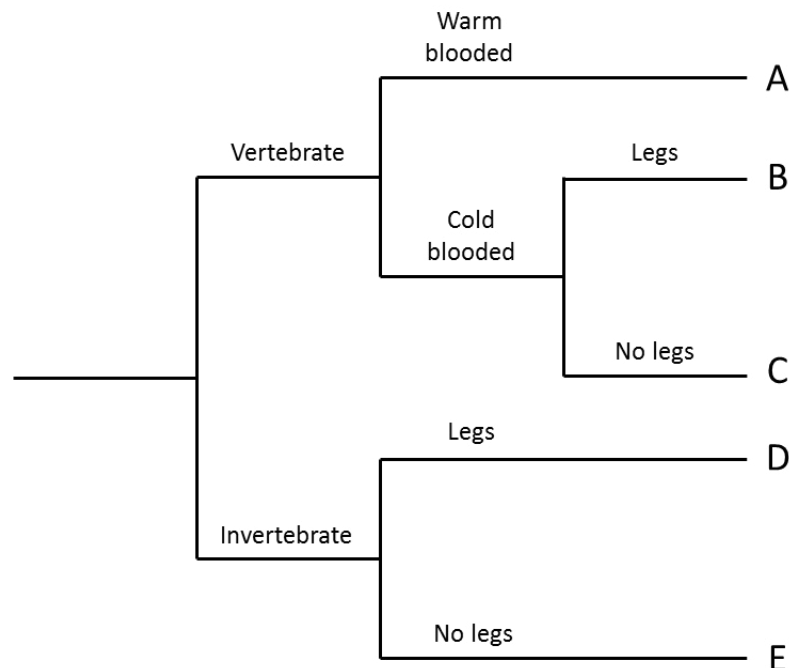
Name two functions of a saltmarsh.

1. **Sponge to absorb water and prevent flooding. Filters pollutants from water and land**
2. **Shields the land from wave action and storms**

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

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.

- B** Diamondback terrapin
- E** Oyster
- A** White ibis
- D** Blue crab
- C** Mullet



Coast

The South Carolina coast is home to marine organisms big and small. What is the largest species you found? Smallest?

Answers vary. The largest are goliath grouper, spadefish, flounder.

The smallest are seahorse, pinfish, sea star, could include some local mollusks species from the shell wall.

Marine debris has become a growing issue off the coast. How might this affect the species you found, listed above?

Answers vary. These are a few: Animals could become entangled, pollution could be ingested and cause illness or death, destroy habitat

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Ocean

Great Ocean Tank

The IUCN (International Union for Conservation of Nature) 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. Vermilion 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 decided on based on this information. We can be better equipped to make decisions about wildlife protection.

Lower Ocean Gallery

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? 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 a problem.

Lionfish have no natural predators in South Carolina; without natural predators their populations grow out of control.

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

Green sea turtle

Kemp's ridley sea turtle

Leatherback sea turtle

Loggerhead sea turtle

Sea Turtle Fact

Most endangered sea turtle in the world

Most common nesting sea turtle in South Carolina

Only sea turtle that eats sea grasses

Largest sea turtle in the world

| List two ways humans can harm sea turtles | List two things humans can do to protect sea turtles |
|--|--|
| <ol style="list-style-type: none"> 1. Boat strike Pollution (chemicals, litter) Fishery entanglements (ropes, fishing line) 2. Fishing hooks | <ol style="list-style-type: none"> 1. Don't litter Pick up trash, recycle Use a circle hook when fishing in ocean 2. Use canvas bags instead of plastic Reduce single-use plastic (forks, straws, lids) Be careful on boats and when fishing |