

**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**

Taxonomy is the classification of organisms. This is one way scientists can learn about and protect the natural world. As you walk around, look for the following animals. For each, figure out the phylum and the Aquarium exhibit in which each animal can be found. Look below this table for phylum help.

	Phylum	Aquarium exhibit
Moon jelly	Phylum Cnidaria	Moon Jelly exhibit
American alligator	Phylum Chordata	Blackwater Swamp exhibit Rice Fields exhibit
Octopus	Phylum Mollusca (no shell)	Camouflage exhibit
Sea urchin	Phylum Echinodermata	Touch Tank exhibit

Phylum Chordata – animals with a vertebrae

Phylum Porifera – have pores, filter feeders

Phylum Cnidaria - tentacles, stinging cells

Phylum Mullusca – soft, muscular foot; hard shell

Phylum Echinodermata – spiny or bumpy skin, water vascular system

Phylum Arthropoda – jointed appendages, eyes, exoskeleton

1





# The Mountains

### **Mountain Forest exhibit:**

Circle the word in each pair that best describes a mountain stream.

Fast-moving or Slow-moving

Hot or Cold

Oxygen-rich or Oxygen-poor

Thinking question: How do the stream characteristics that you circled influence what animals can be found in the mountains? The animals must be adapted to live in fast currents, cold temperatures and oxygen rich water.

### **Piedmont**

South Carolina can be broken down into many watersheds. Use the watershed map near the log to answer these questions.

- 1. What is a watershed?
  - An area of land that collects rain water into streams and rivers that eventually drain to the ocean.
- 2. The South Carolina Aquarium is located in what watershed?

Santee Watershed

Your school is located in what watershed? Answers vary.

### Reservoir exhibit:

Name one pro and one con of damming a river.

**Pro:** Flood control, fishing, boating, recreation, irrigation recreation, irrigation 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.



# **Coastal Plain**

# Brownwater Swamp and Blackwater Swamp exhibits:

blownwater Swamp and blackwater Swamp exhibits.		
What makes a brownwater swamp brown?	What makes a blackwater swamp black?	
Red clay sediment from the Piedmont being carried by rain water into the coastal plain swamps during the rainy season.	Tannins from tree leaves stain the water a darker color. The tannic acid from the leaves leech into the water as leaves fall into the swamps.	

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

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





### Carolina Bay exhibit:

Describe a Carolina bay habitat.

Shallow depressions, ringed with sand

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.

## Saltmarsh

Where does a saltmarsh habitat get its nutrients? (Circle your answer.) Land Sea



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?

Use the given terms and match them to each description (each letter may be used more than once).

Α	Population – a group of organisms	_A	All the red drum
	that can breed with one another (all	D	Sporobolus (Spartina) grass is a producer
	the same species in an area)	С	All the plants, animals, pluff mud and water
В	Community – all the organisms (living	D	Oysters clean the water as they filter feed
	things) that inhabit a particular area	D	Brown pelican is a consumer
С	Ecosystem – all the living and non-	В	All of the blue crabs and fiddler crabs
	living things in a particular area	Α	All of the great blue herons
D	Niche – the role an organism plays in	В	All the plants and animals in the saltmarsh
	an ecosystem	D	Diamondback terrapin is an omnivore

### Coast

#### **Aquatic Invaders exhibit**

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

Lionfish have no natural predators in South Carolina. They compete for space and food; without predators, their populations grow out of control.

What can be done to help the problem?

Many restaurants are serving them on their menu. Divers are capturing lionfish to purge them from our waters. People are asked to not release pets into the wild.





### Ocean

### **Great Ocean Tank**

Fish have many fins. The caudal, or tail, fin gives them the power to swim. The shape of the tail fin determines if they are a fast (forked tail) or slow (round tail) swimmer. List two fast fish and two slow fish.

Forked - fast



1. Jacks, sharks

2. Tomtate, blue runner, permit, pompano

Round - slow

- Porcupine puffer, graysby grouper
- 2. Vermillion snapper, black sea bass, angelfish, tripletail

# **Zucker Family Sea Turtle Recovery™**

Sea turtles can be injured in many different ways. Sometimes they are harmed by humans and sometimes by natural causes. Pick one sea turtle being treated in our hospital and fill out the following information:

Name of your sea turtle:

Species of your sea turtle:

Answers will vary depending on turtle picked. Visit **scaquarium.org/sea-turtle-care-center** to check answers.

Why is your sea turtle in rehabilitation?

Was the issue caused by humans or natural causes? Explain.

What can you do to help this sea turtle?

# **Aquarium Wrap-up**

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

- 1. Recycle Don't litter Pick up trash
- 2. Use canvas bags instead of plastic, Use reusable bottles for drinks Reduce single-use plastics (forks, straws), Join a conservation organization This just names a few...