



High School (9th-12th grade) Scavenger Hunt

Using the graphic panels and the monitors at the exhibits, answer the following questions. Please ask any of the volunteer or staff for any additional questions you might have.

Freshwater Conservatory

1. Raven Rock: This exhibit represents the start of the Cape Fear River. The Haw and Deep Rivers combine near Raven Rock State Park to form the Cape Fear River. Find the striped bass in this exhibit. Striped bass swim upstream to spawn. How might human built dams impact striped bass populations?

2. Luna: Our albino alligator is a rare type of alligator. a) What is the probability that an alligator will be albino if both its parents are green alligators? b) What problems do albino alligators face in the wild?

a) _____% (Punnett square at end of worksheet to help)

b) _____

3. Hidden Hunters: There are endangered short-nose sturgeons in this exhibit. What does it mean for an animal to become endangered? What factors caused sturgeons to become endangered?

4. Venomous Snakes and Alligators: Snakes and alligators have a reputation for being dangerous. Describe the role these predators play in their environment. How does the environment benefit from these animals? How can people avoid being injured by these animals?

5. Bald Eagle: Bald eagles used to be an endangered species, largely because of the widespread use of the pesticide DDT. DDT cause eagle eggs to break before babies could hatch. DDT is now banned in the United States and eagle populations have been restored. Describe how human actions can both positively and negatively impact wildlife.



Coastal Waters

6. Buzzard's Bay: This is an example of a salt marsh ecosystem. Salt marshes are characterized by brackish water (combination of fresh and salt). Why are salt marshes important? List some of the species you see in this exhibit.

7. Loggerhead Sea Turtle:

a) How old is the sea turtle on exhibit? Will it be released?

b) Look at the wall of trash. What human activities can have a negative impact on sea turtle populations?

c) How do humans care for sea turtle nests found on populated beaches? Why do they do this?

8. Coquina Outcrop: Our touch tank represents a coquina outcrop. These outcrops are only visible at low tide due to changes in sea level height. What kinds of animals take advantage of the tide pools created when the water is at low tide?

9. Hurricanes: Look at historical data on storm damage. Why do more recent storms with lower wind speeds cause more monetary damage than less recent storms with higher wind speeds? How would you design a home to protect it from hurricane damage?

Ocean Gallery

10. Cape Fear Shoals, Shark Tooth Ledge, and Cape Fear Ledge: These three exhibits are examples of Hard Bottom Reef habitats. List three human impacts on hard bottom reefs and briefly explain how each affects these reefs:

a) _____

b) _____

c) _____

11. Sea Nettles and Moon Jellies:



a) Jellies eat small animals and algae. The energy they gain from this food is used to grow and reproduce. What human actions can cause algae to grow rapidly and in turn cause rapid increases in jelly populations? _____

b) How do you treat a jellyfish sting? _____

Exotic Aquatics

13. Lionfish & Lobster: Lionfish are an invasive species in the Atlantic Ocean. They out-compete many other mid-level predators for food and are not eaten by many animals, so their populations are exploding. How will this impact the biodiversity of native populations? Why is biodiversity important?

14. Pacific Coral Reef: The coral in this exhibit are real. Coral need warm, shallow water with abundant sunlight to survive. They also need calcium in the water to build their calcium carbonate skeletons. Calcium is difficult to obtain when there is too much carbon dioxide in the water. What human activities may make it more difficult for corals to survive? _____

15. Bamboo Sharks:

a) Touch our Bamboo Sharks. What do they feel like? How do these specialized scales benefit the sharks? _____

c) Observe the location of the Bamboo Sharks' mouths, what does this tell us about their feeding habits? _____

Punnett Square

Parents: Green Alligators (Homozygous for albinism)
