



Welcome to the Tennessee Aquarium!



While enjoying your visit today, look closely at the animals, the graphics and the exhibits as you search for answers to the following questions.

Grades 6 - 8

Good luck and have fun exploring the Tennessee Aquarium!

Ocean Journey

Tropical Cove

The Tropical Cove recreates a rainforest habitat in a 30-foot tall sunlit space filled with lush tropical plants and 20-foot tall palms. Engage all of your senses as you encounter the sights and sounds of animals from the treetops to forest pools.



1. The hyacinth macaws are the largest members of the parrot family. Name one way they use their powerful beaks. _____

2. The epaulette sharks in Stingray Bay are a small, non-aggressive species of shark. All sharks are covered in small teeth called _____



3. Name an animal you touched in Stingray Bay.

Fun Fact: Hyacinth macaws can apply 300 pounds of pressure per square inch with their beaks.

Butterfly Garden

Butterflies make use of the color, shape, pattern and motion of their wings to create some of the most effective and dazzling visual displays in nature.



4. Find a butterfly that is brightly colored. How do you think bright colors help this animal?

5. Some butterflies have circles on their wings called eyespots. Find a butterfly with eyespots. What do you think the purpose of eyespots is?

Penguins' Rock

Step into Penguins' Rock to experience life in a penguin colony. Learn amazing facts about gentoo, macaroni and other species of penguins.

6. How many species of penguins are there worldwide? a. 2 b. 17 c. 71 d. 217

7. Penguins have black and white body colors to help protect them from predators. What is this type of camouflage called? _____

8. Penguins live only in which hemisphere? (circle one) southern northern

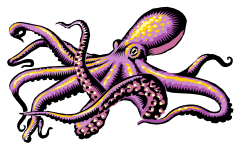
9. Name 5 predators that penguins have on land and in the water?



Fun Fact: Macaroni penguins have been known to dive to depths of 300 feet.

Boneless Beauties

10. The giant spider crab is the largest known crustacean in the world. How much can it weigh when full grown? _____
11. The giant Pacific octopus is a very intelligent animal. The aquarists give them things to play with to keep them active. Write the name of one of their toys.



Fun Fact: The giant Pacific octopus has the learning ability of a three year old child!

Jellies: Living Art



12. Jellyfish go through many stages of a life cycle. What is the adult form of a jellyfish called? _____
13. Name at least five different types of food a jelly may consume? _____

14. Number the pathway for jellies collecting food:
 _____ mouth _____ oral arms _____ tentacles _____ stomach
15. Circle the jelly not found in the gallery?
 a. lagoon b. moon c. umbrella d. lion's mane
16. The sea walnuts, or ctenophores, do not have stinging cells. How does it snare its prey?

17. Upside down jellyfish primarily receive their food from a symbiotic algae. What kind of algae is this? _____ What other animal, found in Boneless Beauties, lives symbiotically with this type of algae? _____

Fun Fact: The lion's mane jelly is the largest true jellyfish. Its bell may grow to be eight feet in diameter and its tentacles may reach more than 100 feet long.

Secret Reef

Deep in the waters of the Gulf of Mexico lies a coral reef teeming with life. The Secret Reef contains over 600,000 gallons of artificially created saltwater and is home to about 3,500 fish

18. What place does the Secret Reef represent? _____

19. How do you think color helps a fish survive in a reef? _____
20. Name the two types of sharks found in the Secret Reef and tell one characteristic about them that is different. _____



Fun Fact: It takes around 100,000 pounds of salt to make the water in this exhibit like ocean water!

Seahorse Gallery

Seahorses, pipefish and seadragons are all fish but they sure do look different! Look for some of their unique characteristics as you go through this exhibit: tube-like mouths, rigid bodies, eyes that rotate independently and the ability to change colors to match their surroundings.



21. Seahorses are actually fish even though they don't look like it. What characteristics do they share with other fish?

22. What is different about seahorse reproduction compared to other animals?

Fun Fact: Seahorses have no stomachs, so they must eat often. We feed our seahorses several times each day.

Cove Forest

The Cove Forest exhibit recreates a small, remote, ancient forest found high in the Appalachian Mountains.



23. Observe the snakes in the Cove's snake exhibit (first exhibit on your right). The timber rattlesnake and copperhead are venomous. The black rat snake is nonvenomous.

How do you think venom helps a snake to survive? _____

24. There are three species of trout in the Cove Forest: the brook trout, which is the only trout native to East Tennessee, the brown trout and the rainbow trout. Take a moment to observe each trout and write a distinguishing feature of each fish.



Discovery Hall

Explore wetlands, estuaries and other watery habitats in Discovery Hall. You will encounter many small creatures that are often overlooked.

25. Alligators are one of the few reptiles to provide any form of parental care for their young. Name one of the ways mother alligators take care of their young.

26. Touch one of the sturgeon carefully. What does it feel like?



27. Name two threats amphibians face. _____



Fun Fact: The Hellbender is the largest salamander in North America. It can reach 29 inches in length. Its Japanese relative can reach 60 inches in length.

Delta Country

The Delta Country immerses visitors in a cypress swamp habitat. Swamps are important because they act as nature’s sponges. By absorbing excess water and then slowly releasing it into rivers, swamps help prevent flooding.

28. What causes the water in wetlands, such as cypress swamps, to be dark brown or black?

29. The alligator snapping turtle has a very unique way of eating. Describe this technique and what part “luring” plays in the process.



30. When ducks preen, they take a bit of thin oil from a gland near their tail and rub it over their feathers. Why is it important for them to spread this oil around?



Fun Fact: When frightened, hooded mergansers will sink in the water so only their heads are showing.

Gulf of Mexico

The Gulf of Mexico is the ultimate destination of waters from the Tennessee, Ohio and Mississippi Rivers. Notice the transition from the mangrove trees found near the shoreline to the open ocean.

31. Observe the smaller fish in the exhibit. How do they use the mangrove roots?



32. Stop and observe the bonnethead shark. What advantage does the shark possess by having its eyes on the outer edge of its head?

Fun Fact: Sharks have 8 to 15 rows of teeth that are continually replaced throughout life. As the front teeth fall out, the back teeth move up to take the place. Some types of sharks may have as many as 20,000 teeth in one lifetime.

Rivers of the World

Rivers are very important to the people, plants and animals that live around them. All rivers carry freshwater; however, they can be very different. Take a look around this gallery and discover how different rivers can be.



33. Piranha are not always the ferocious fish they are made out to be. When do you think the piranha might become most aggressive?

34. The pig-nosed turtle is different from other freshwater turtles because it has paddle-like forelimbs. What other turtle in the aquarium does it resemble?



Turtle Gallery

Turtles are beautiful and interesting creatures that are found all over the world. The shape of a turtle shell often can tell us where it lives. Species with high domed shells usually live on land, while flatter shells help aquatic turtles swim more easily. Of course, there are always exceptions. Look carefully and see if you can find some of them in the exhibit.

35. What are two physical characteristics of pancake tortoises that allow them to hide in crevices?

Fun Fact: The alligator snapping turtle’s beak is designed to be sharpened every time the turtle opens or closes its mouth.

Tennessee River

The Tennessee River has undergone many changes. Before dams were built, the river was very dangerous and hard to navigate in many areas. When the dams were built, the water was slowed, deepened and controlled, allowing the river to be used as a main source of transportation.

36. How many species of darters are in danger of becoming extinct in Tennessee? _____

37. What natural phenomenon in 1811 and 1812 caused the Mississippi River to run backwards, forming Reelfoot Lake? _____



Fun Fact:

The word Tennessee originates from the Native American word for river — Tanasi.

Lake Nicaragua

Observe behaviors among the different cichlid species. Look carefully for signs of parental care.

38. Why do you think cichlids have so many babies?

39. How do the parents protect their offspring?



Flooded Amazon

Tennessee is a temperate climate zone that experiences four seasons: spring, summer, fall and winter. Tropical areas near the equator experience only two seasons: rainy and dry. During the rainy season in the Amazon, between 80 - 120 inches of rain can fall. This causes rivers to flood out of their banks and into the forests. Some fish species in this area are adapted to eat the seeds and fruits from the trees when water is high.



40. The *Arapaima gigas* can grow to 14 feet in length. Look at its mouth. How do you think this fish catches its prey? _____

Note: A question may have more than one correct answer. Answers are available on our web site: <http://www.tnaqua.org/KidsTeachers/KidsTeachers.asp>.