

#10006 THE BIG AQUARIUM

BIG KIDS PRODUCTIONS, INC., 1998
Grade Level: 2-5
50 mins.

DESCRIPTION

The Tennessee Aquarium in Chattanooga is a unique freshwater aquarium. Visitors learn how a river is formed, how fish live beneath its surface, and other fish facts. Showcases important world rivers and their fish. Introduces aquarium workers, food preparation, the quarantine area, and a control center. Notes the aquarium is a learning place from top to bottom.

ACADEMIC STANDARDS

Subject Area: Science—Life Sciences

- Standard: Understands the structure and function of cells and organisms
 - ♦ Benchmark: Knows that plants and animals progress through life cycles of birth, growth and development, reproduction, and death; the details of these life cycles are different for different organisms. (See INSTRUCTIONAL GOALS 2.)
 - ♦ Benchmark: Knows that living organisms have distinct structures and body systems that serve specific function in growth, survival, and reproduction (e.g., various body structures for walking, flying, or swimming) (See INSTRUCTIONAL GOALS 2.)
- Standard: Understands relationships among organisms and their physical environment
 - ♦ Benchmark: Knows that an organisms' patterns of behavior are related to the nature of that organisms' environment (e.g., kinds and numbers of other organisms present, availability of food and resources, physical characteristics of the environment) (See INSTRUCTIONAL GOALS 1 and 2.)

Subject Area: Science—Nature of Science

- Standard: Understands the scientific enterprise
 - ♦ Benchmark: Knows that scientists and engineers often work in teams to accomplish a task (See INSTRUCTIONAL GOALS 3.)

INSTRUCTIONAL GOALS

1. To describe several environments and exhibits in the Tennessee Aquarium.
2. To point out various organisms that live in these environments.
3. To observe how the aquarium is maintained.

VOCABULARY

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|-----------------------|------------------|
| 1. aquarium | 11. plankton |
| 2. beneath | 12. quarantine |
| 3. breathe | 13. rain forest |
| 4. delta | 14. river |
| 5. endangered species | 15. salt water |
| 6. environment | 16. stream |
| 7. exhibit | 17. surface |
| 8. fresh water | 18. swamp |
| 9. gills | 19. tank |
| 10. oxygen | 20. veterinarian |



BEFORE SHOWING

1. Review the classification of animals.
 - a. Display several pictures of animals and sort them into their respective groups: mammals, fish, birds, reptiles, and amphibians.
 - b. List the common characteristics of each group.
2. Display pictures of aquariums typically found in homes, schools, or stores.
 - a. What kinds of animals live in aquariums?
 - b. What is the purpose of the sand, the aerating device, the plants, and the filter?
 - c. What maintenance work needs to be done to help the fish survive?
3. Explain that the video is about the Tennessee Aquarium in Chattanooga. Use a map to locate and identify:
 - a. Chattanooga, where the aquarium is located.
 - b. The Tennessee River, which the museum is set up to replicate. Show its route from the mountains to the sea.
 - c. The Gulf of Mexico, Nickajack Lake, and river deltas, which are areas replicated in the aquarium.
 - d. Various rivers around the world.

DURING SHOWING

1. View the video more than once, with one showing uninterrupted.
2. Pause after each section that describes an exhibit. List animals that live in each environment and discuss what is needed for their survival.

AFTER SHOWING

Discussion Items and Questions

1. How is the aquarium in the video different from the ones seen in schools and homes?
2. What are some tasks that workers must perform to keep the aquarium clean?
3. Most of the animals in the aquarium are fish, birds, reptiles, and amphibians. What is the only animal shown in the video that was a mammal? What do otters eat?
4. What animal lives in the mountain stream?

5. Describe the environment in the delta area. Name some birds that live there.
6. What is the largest reptile in North America?
7. What is an unusual feature of the alligator snapping turtle?
8. How long can some turtles stay underwater?
9. What do fish breathe? How do they get the oxygen from the water?
10. How is seawater created in the aquarium?
11. The paddlefish is a filter-feeder. What does this mean?
12. What is the purpose of the quarantine area? What is the veterinarian's job?
13. Why are piranha dangerous fish?
14. How do the scientists at the aquarium protect endangered species? Why are mussels so important?
15. What are some foods that are fed to the animals living in the aquarium?
16. What are koi?
17. What are the eggs of sturgeon used for?
18. Describe jellyfish.
19. What are the purposes of the aquarium?

Applications and Activities



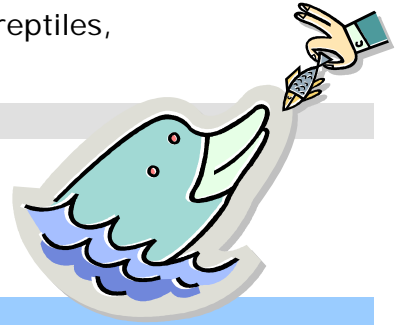
1. Contact the Tennessee Aquarium for statistical information such as:
 - a. Number of animals in the exhibits.
 - b. Number of species of each animal group.
 - c. Amount of food consumed each day.
 - d. Average daily attendance.
 - e. Number of employees.
2. Design a travel brochure for the Tennessee Aquarium.
3. Research other famous aquariums in the United States. Point out on a map where they are located.
4. Create a trivia sheet of fish, reptiles, amphibians, and birds. Include information such as the largest and smallest, heaviest, most unusual, and number of species of each.
5. Some of the names of the animals in the video have descriptive names such as rose-breasted grosbeak, hammerhead shark, and yellowtail snappers.
 - a. Research in a fish or bird handbook for other descriptive names.
 - b. Create appropriate descriptive names for students in the classroom.
6. Report on special equipment needed for underwater divers in aquarium tanks.
7. Present a report on carnivorous plants, such as the Venus flytrap, corkscrew, pitcher plant, or bladderwort.
8. Draw a poster that illustrates how rivers are formed.
9. Obtain a large outline map of the world and mark and label the rivers that are mentioned in the video. List fish that are found in each river. Include the:
 - a. Amazon River.
 - b. St. Lawrence River.
 - c. Zaire River.
 - d. Tropical Asian rivers.
 - e. Volga River.

C a p t i o n e d M e d i a P r o g r a m

10. Develop an imaginary menu listing the foods prepared for the animals in the aquarium.
11. Research delicacies that are prepared from fish. Bring available ones to class and sample them.
12. Make a slide presentation showing pictures of different kinds of jellyfish. Include information such as its basic anatomy, function of its parts, and how it acquires food.
13. Compile a list of endangered species that includes fish, reptiles, amphibians, and birds.

CMP RELATED RESOURCES

- [*What is a Fish?* #2645](#)
- [*Fish, Amphibians, Reptiles* #3125](#)
- [*The Living Seas* #2570](#)



World Wide Web



The following Web sites complement the contents of this guide; they were selected by professionals who have experience in teaching deaf and hard of hearing students. Every effort was made to select accurate, educationally relevant, and "kid safe" sites. However, teachers should preview them before use. The U.S. Department of Education, the National Association of the Deaf, and the Captioned Media Program do not endorse the sites and are not responsible for their content.

• TENNESSEE AQUARIUM

<http://www.tnaqua.org/>

Contains links to information such as resources for kids and teachers, a list of all animals at the aquarium, and a *Finding Nemo* Web site that includes games and worksheets.



• ANIMAL INFORMATION

<http://www.seaworld.org/animal-info/index.htm>

Includes information such as setting up an aquarium at home, endangered species, and fun facts about animals.

• KIDSClick!

<http://sunsite.berkeley.edu/KidsClick!/midanim.html>

Contains a list of Web sites with information on animals. Examples include "Fish FAQ," "Froggy Page," "The Gator Hole," and "All About Birds."