

Curriculum Guide (K-12): Fishes of Texas

from the Texas Memorial Museum

Though we may not believe it, Texas has more surface water than any other state, except Minnesota and Alaska. Its 80,000 miles of rivers and streams total about 1.7 million acres of water. The vast amount of fresh water in Texas results in a wide variety of fishes that inhabit rivers, streams, and lakes. Fishes such as sunfish, catfish, bass, gars, trout, perch, and even eels may be found in the fresh water of Texas. In the Freshwater Fishes of Texas exhibit, common and uncommon fishes from around Texas are displayed along with information about each species. The exhibit creates awareness of the natural freshwater aquatic ecosystems of Texas.

Learning Objectives

- Create an awareness of local aquatic environments.
- Show morphological differences in a species that enhance or hinder its ability to survive.
- Inform us about our positive and negative effects on freshwater ecosystems.
- Explain how a fish's body works to perform functions necessary for living.

Discussion Questions and Activity Suggestions

Level	Strategy	Example	Science TEKS Correlations
Elementary School	Discussion Questions	Describe the environment that a freshwater fish lives in.	§112.3.b.1.10.A §112.6.b.4.5.A
		How do fish breathe? How is this different from the way that we breathe?	§112.2.b.K.6.A §112.3.b.1.6.A §112.4.b.2.5.A
		When have you seen a fish? Where were you? What happened?	§112.2.b.K.9.B §112.3.b.1.9.B §112.4.b.2.9.B
		How does a fish move through the water?	§112.3.b.1.6.B §112.4.b.2.6.D
		How does the water cycle affect freshwater fishes?	§112.4.b.2.10.A
		How does pollution affect the health of freshwater fishes?	§112.5.b.3.8.C
	Activities	Using a fish identification book, identify as many fish as you can at a local pond or stream.	§112.2.b.K.6.A §112.3.b.1.6.A §112.4.b.2.5.A
		Write a short story about a fish. Describe its appearance and actions from the time it is born until it is grown	§112.2.b.K.7.D §112.3.b.1.7.D §112.7.b.5.11.A
		Draw a picture of your favorite fish from this exhibit. Why is it your favorite?	§112.2.b.K.2.C §112.2.b.K.4.A §112.3.b.1.6.B
	Middle	Discussion	What would happen to fishes in a pond if there was suddenly

School	Questions	more food than normal? What if there was less food?	§112.22.b.6.8.C
		What are the components of the ecosystem that a freshwater fish lives in?	§112.23.b.7.12.A,C
		What kind of organisms are predators and prey of freshwater fishes? How do they interact?	§112.24.b.8.6.C
	How have human activities changed the quality of fresh water?	§112.24.b.8.14.C	
	Activities	Choose one freshwater fish of Texas to research. What physical traits enhance its ability to survive and reproduce?	§112.23.b.7.10.B
With an adult's supervision, use field equipment to gather pond water and analyze it under a microscope. What effect do things that you see have on freshwater fishes?		§112.22.b.6.4.A §112.23.b.7.4.A §112.24.b.8.4.A	
High School	Discussion Questions	What have humans done to protect the ecosystems where freshwater fishes live?	§112.44.c.8.C,D
		What would happen to the biodiversity of a freshwater ecosystem if a new predator of all freshwater fishes was introduced?	§112.44.c.4.D,E
		What are aspects of the Earth that make survival of freshwater fishes possible?	§112.49.c.4.A,B
		What is an aquatic ecosystem? Is it limited to fresh water?	§112.46.c.4.A,B
	Activities	Choose a current freshwater fish of Texas. Using fossils and physiological similarities, trace the fish through its biological evolution to find its oldest known ancestor.	§112.43.c.7.A
		Describe and sketch a food web for the organisms in the same biome as a freshwater fish.	§112.43.c.12.E
		As a class, discuss what would you have to do to set up an aquarium and maintain a fish. Your teacher may set up an aquarium in your classroom. If so, observe your fish's behavior and discuss it as a class weekly.	§112.43.c.11.B §112.46.c.2.E §112.46.c.4.C §112.46.c.5.A

Additional Resource

Texas Parks and Wildlife

Learn about and see pictures of many [Texas freshwater fishes](#).