



Texas Aquatic Science is a cooperative education project sponsored by Texas Parks and Wildlife, The Harte Research Institute for Gulf of Mexico Studies at Texas A&M University–Corpus Christi, and The Meadows Center for Water and the Environment at Texas State University.

For more information, visit www.tpwd.texas.gov/education or call (512) 389-8060



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Texas AQUATIC SCIENCE



Life's better outside.®

A comprehensive aquatic science curriculum, from molecules to ecosystems, and headwaters to ocean, for middle school and high school students.

About Texas Aquatic Science

Texas Aquatic Science is a grade 6–12 curriculum that helps teachers make students aware of the importance of water to life and their part in conserving this valuable resource.



Texas Aquatic Science includes a comprehensive teacher guide, available student textbook and an online student portal. The *Teacher Guide* (www.tpwd.texas.gov/education/resources/aquatic-science) is linked to short videos, which provide an overview of the main ideas in each chapter and to the student text. It conveys clear, concise, scientific information in an interesting way with illustrations of important concepts. Find videos and student text at: www.texasaquaticscience.org



Comprehensive Curriculum

- 14 chapters with video introductions
- Water and aquatic science careers
- Short stories on water and the environment
- Online video lessons

Find a Texas Aquatic Science workshop at

www.tpwd.texas.gov/calendar

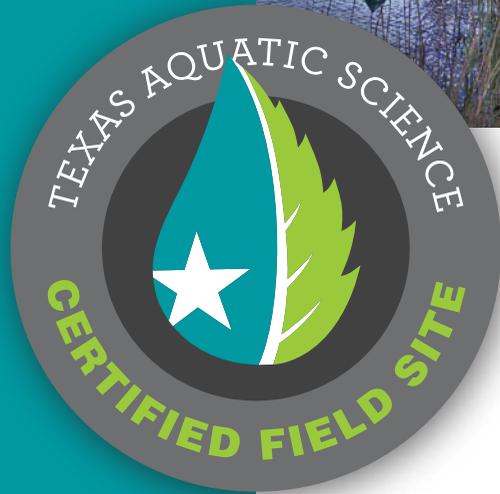


Have you connected with a Texas Aquatic Science certified field site?

Make the most of the Texas Aquatic Science curriculum by partnering with your local informal science site. Field experiences make learning come alive and give students an emotional experience to which they can connect their learning.

- Research shows that this greatly enhances retention.
- In each region of our state, you'll find informal science providers that will facilitate Texas Aquatic Science activities. Contact them and schedule a visit!
- Find one near you at www.tpwd.texas.gov/education/water-education/TASCFS
- Certified field sites are a rich source of aquatic science experiences and site-based activities for visiting school groups.

Contact johnnie.smith@tpwd.texas.gov for more information.



Look for this logo at participating sites to know that you are at a certified field site!

Texas Aquatic Science has its roots in hands-on, experiential learning. To that end, there are eight field-based activities in the curriculum that lend themselves specifically to site-based instruction and activity.

Any site providing informal science learning (zoos, aquariums, nature centers, and parks) can be designated as Texas Aquatic Science certified field sites with these goals in mind:

- Expand school group visitation and field investigations
- Create and grow connections between formal and informal educators
- Increase project-based learning opportunities and the real world relevancy they bring to learning

You and your learners can experience these eight field activities at Texas Aquatic Science certified field sites:

ACTIVITY 1.9 — WATER QUALITY

introduces students to a local creek or pond to use water chemistry testing they have practiced in the classroom.

ACTIVITY 3.3 — LAND USE IN OUR WATERSHED

asks students to take a field trip on the school grounds through a scavenger hunt looking for places where water flows, infiltrates, or accumulates, and how land use influences the quality of water in their watershed.

ACTIVITY 4.4 — COLLECTING FOR A NATIVE AQUARIUM

includes a field trip to a local pond or stream to collect organisms for a native aquarium for observation in the classroom.

ACTIVITY 6.4 — MEASURING POPULATIONS

uses a field trip to a local pond or stream to practice mark and recapture techniques for estimating the population of an aquatic invertebrate.

You can find certified field sites across the state. Check the website often for the latest information.

ACTIVITY 8.5 — ASSESSING STREAM HEALTH

with invertebrate sampling has students conduct a field investigation to use multiple methods of assessing water quality in a local stream or river.

ACTIVITY 10.5 — FIELD TRIP TO A WETLAND

includes a field trip to a local wetland such as a playa lake or wetland to look at the unique characteristics of these aquatic ecosystems from soil, to plants, to wildlife species.

ACTIVITY 12.6 — FIELD TRIP TO THE GULF OF MEXICO

has a longer field trip to investigate saltwater ecosystems of bays, estuaries, and the Gulf of Mexico.

ACTIVITY 13.5 — FISH SAMPLING AND ECOSYSTEM ASSESSMENT

helps students learn fishing techniques and provides opportunities for students to practice fishing while they examine multiple criteria for evaluating a local aquatic ecosystem.

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www.tpwd.texas.gov/education/water-education/TASCFS