Matagorda Bay Nature Park

Natural Science Education Programs

"This is such a wonderful facility and the location lends itself to teaching about the coastal environment. This is a great place for students to learn about the area that is in their backyard."

Stephanie K.
Fifth grade teacher

Illustrations courtesy of Texas Parks and Wildlife Department.

Sand, sun and discovery...

Matagorda Bay Nature Park

A special place awaits you where the lower Texas Colorado River channel meets the Gulf of Mexico. Matagorda Bay Nature Park, owned and operated by the Lower Colorado River Authority (LCRA), is a great place to relax at the beach and explore hundreds of acres of coastal marshes and dunes. Located on the Central Flyway – one of four principal North American migratory bird routes – it is one of the best birding sites in the nation. The 1,600-acre park is a unique, environmentally significant property that has been carefully preserved and developed by LCRA, a conservation and reclamation district created by the Texas Legislature. The nature park is part of a system of parks and natural science centers operated by LCRA along the Texas Colorado River.

The Natural Science Centers' educational philosophy is based on the belief that people learn best in the outdoors through direct experience with the natural world that surrounds them. Its mission is to promote conservation and create stewards of the Texas Colorado River. By providing opportunities for children and adults to experience the river's beauty first-hand, the education and recreation programs not only teach, but also inspire.

The Natural Science Center at Matagorda Bay Nature Park is home for your group's outdoor activities, and the center's experienced staff can take your classroom topics and bring them to life in a way that creates enthusiastic learners. Hands-on activities that incorporate different learning styles and lessons that bring students in close contact with the natural world encourage their inherent sense of wonder.

Read on to discover what Matagorda Bay Nature Park can offer you and the curious minds in your care.

One protects what one likes and one likes what enchanted us.

Jacques-Yves Cousteau

Education Programs

All education programs are grade-level appropriate and support the Texas Essential Knowledge and Skills (TEKS) objectives.

Example of a full day of programs for the elementary level:

1. Beach Adaptations
2. Water Coursing Through History
3. Salt Marsh Munchers

Example of a full day of programs for high school level:

1. Naturally Changing
2. Dune Defense and Beach Processes
3. Ocean Investigation

Fish Prints (Elementary)

Students will learn the basic anatomy of a fish and get to try their hand at the ancient art form of gyotaku(fish prints).

Beach Adaptations (Elementary)

Life on the beach is hard. While having to contend with the tides, the salt air and the wind, only the hardiest of life can live out here full time. In this program, students will learn how animals and plants have adapted to live in the harsh environment of the beach by hands on examinations of three different habitats.

A Slice of the Watershed (Elementary)

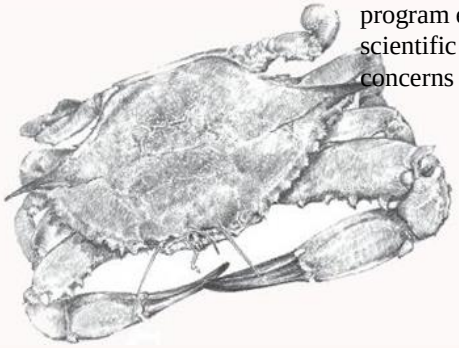
Historically, watersheds and river basins have determined where people live and work. Texas droughts and floods have taught us that water management is vital for reliable water supplies to municipalities, agriculture and industries. In this activity, students will build a surface water and groundwater model and then apply water systems concepts.

Salt Marsh Munchers (Elementary)

Texas wetlands serve as nursery grounds for more than 95 percent of the recreational and commercial fish species and a third of the threatened and endangered fish species in the Gulf of Mexico. In this activity, students analyze and define wetland characteristics, identify the roles of the biotic and abiotic components of a salt marsh and investigate how organisms adapt to life in this unique environment. Students will discover why it is important to protect the wetlands.

Water Coursing Through History (Elementary)

Because water is important to all members of a community, as demands for this finite resource grow the need to conserve and manage supplies also grows. In this activity, students simulate changes in a watershed over several time periods. In each round, the students represent different water users whose demands exceed the resource. This program encourages students to practice math skills, evaluate scientific thoughts and social behavior and discuss environmental concerns in their own hometowns



Nature Scavenger Hunt (Elementary & Upper Elementary)

There is so much more than meets the eye at the Texas coast. Our nature scavenger hunt incorportates a fun hunt for unique items along the beach, river and wetlands. Learn about the geology, marine life, beach processes and wetland's significance as we search for items within each area.

Trapped in Chains and Webs (Upper Elementary)

Every living creature is unique but tied to each other by food chains and food webs. Students will learn about producers, consumers and decomposers and how man affects this delicate balance. Students also will learn about habitat zones and discover why it is necessary for us to protect and conserve all elements of the environment.

A Class of Their Own (Upper Elementary)

The varieties of Earth's living organisms are the result of adaptation. Students use the taxonomic classification system of living organisms to examine different phylum. This program gives students a chance to observe organisms up close and compare their anatomical adaptations, unique behaviors and habitat requirements.

Sand and Sediments of the Matagorda Bay Area (Upper Elementary)

The sands and sediments found along the Texas Coast have a story to tell. In this activity, students will determine agents of erosion and deposition using shape, sorting and size information. Students will infer about the region's geological history, marine life and variations in flow patterns of water currents.

Shelling Out Fun (Upper Elementary)

Finding shells on the beach is a fun activity for all ages. Scientifically identifying shells involves the process of sorting and classifying. This process groups organisms which share physical characteristics, then separates organisms based on their unique physical characteristics. Students will gather, sort, create and use a dichotomous key to classify shells found on the beach.

A Sea of Green, Brown and Red—Plant Life on the Coast (Middle School)

Plants moving? Primary producers in the marine environment are single-celled floaters better known as phytoplankton. This program investigates aquatic and terrestrial plant life and examines the special adaptations needed to survive in the marine environment. Students will compare/contrast the variety of plant life and algae that thrive at the coast and determine why it is important to protect these members of the environment

Birding 101 (Middle & High School)

Students use bird field guides and binoculars to identify the diverse array of avian life in Matagorda. Students will hike the park and study the different birds and their habitats along the river, beach and wetlands.

Fishing 101 (Middle School & High School)

Students learn basic fish anatomy, why we use rules and regulations when fishing, different conservation and study methods, tackle box basics, fish handling and rig their own fishing pole! Students will finish this program with an opportunity to fish along the river. $5 per student

Look deep into nature, and then you will understand everything better.

Albert Einstein

Estuary Investigation (Middle and High School)

Life for a vast array of aquatic organisms starts where saltwater and freshwater mingle. This brackish habitat is the nursery or first home for fish, crab, shrimp, oysters and other marine organisms. Degrees of salinity determine where marine organisms breed and live. Participants investigate saltwater/freshwater interaction, determine salinity levels at several locations using various tools to collect, examine and then release estuary organisms.

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Ocean Investigations (Middle and High School)

Oceanography is a wide ranging study encompassing the physical, chemical, geological and biological study of the ocean. In this hands on program, students will examine all four components. By using scientific "tools of the trade" students will study the environment of the Gulf of Mexico.

GPS on the Trail (Middle and High School)

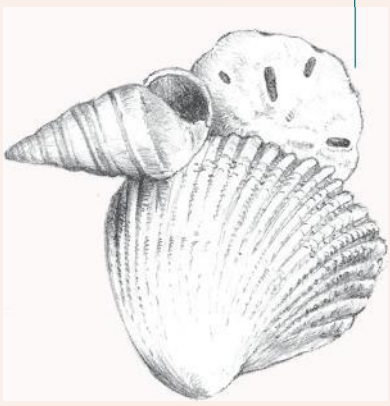
Learn how to use a GPS (Global Positioning System) unit and apply what you learn while kayaking in East Matagorda Bay or walking along the shoreline of the Gulf of Mexico. This far-reaching technology has numerous applications. Students will use the GPS units to collect and plot data. Information collected from this tool will be a reference source for the final analysis of the activity. This technology is used in the Coastal Investigation Program, Nature Scavenger Hunt and Dune Defense program.

Dune Defense and Beach Processes (Middle and High School)

Dunes are valued as the first line of defense against powerful ocean waves. To understand dunes and the importance of dunes conservation, one must understand beach processes. Using appropriate tools and skills, this activity highlights shoreline slope, wave formation, wind direction and other beach processes which create the intricate relationship between dunes and beach.

Naturally Changing – Erosional Deposition at the Coast (Middle and High School)

Natural processes are constantly changing and shaping the coastal regions. Elevation and climate affect the rate of change that occurs as rivers deliver sediment to the Texas beaches. Beaches are the accumulation of sediment found along the landward margin of the ocean. No matter what the beach composition, the material does not stay in one place. In this activity, students will work with stream tables, various substrates and other agents of erosion and deposition to examine the changing nature of streams, rivers, beaches and other depositional features.



Coastal Investigation Comparative Study (Middle and High School)

By using scientific "tools of the trade", students will compare the environments of East Matagorda Bay and Gulf of Mexico. The program is capped off with a kayak trip in the bay.

Natural Science Education Programs Price List

Our educational programs reinforce the Texas Essential Knowledge and Skills (TEKS) objectives and the processing skills necessary for the STARR.

Number of Participants	Length of Program	Prices
Each program up to 30 students	1 hour	$90 per program
31+ students		$3 per student
Each program up to 30 students	2 hours	$150 per program
31+ students		$6 per student

Coastal Investigation comparative study includes kayaking	Limited to 40 students per day	$35 per student

How To Register

Contact: Matagorda Bay Natural Science Center
800-776-5272, ext. 4740 or 979-863-2603
or
P.O. Box 312 • Matagorda, TX 77457 • Email: matagordabay@lcra.org
For more information visit: www.lcra.org/matagorda

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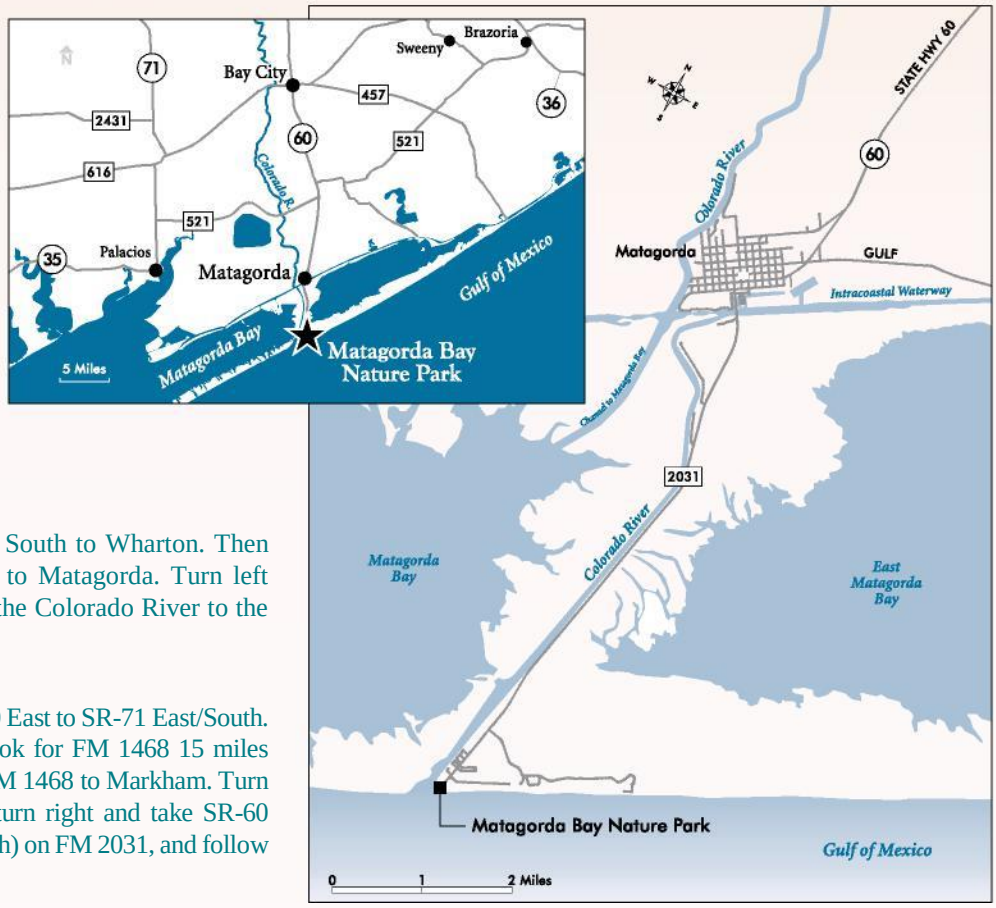
Driving directions to Matagorda

From Austin: Take Bastrop Hwy East which becomes SR-71 East/South. Stay on SR-71 past El Campo. Look for FM 1468 15 miles South of El Campo. Turn left on FM 1468 to Markham. Turn left on SR-35 East. In Bay City turn right and take SR-60 South to Matagorda. Turn left (south) on FM 2031, and follow the Colorado River to the Gulf.



From Houston: Take US-59 South to Wharton. Then take SR-60 south thru Bay City to Matagorda. Turn left (south) on FM 2031, and follow the Colorado River to the Gulf.

From San Antonio: Take I-10 East to SR-71 East/South. Stay on SR-71 past El Campo Look for FM 1468 15 miles South of El Campo. Turn left on FM 1468 to Markham. Turn left on SR-35 East. In Bay City turn right and take SR-60 South to Matagorda. Turn left (south) on FM 2031, and follow the Colorado River to the Gulf.

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P.O. Box 312
Matagorda, Texas 77457
lcra.org/parks