

# The Meadows Center for Water and the Environment



## TEKS CURRICULUM GUIDE Kindergarten



THE MEADOWS CENTER  
FOR WATER AND THE ENVIRONMENT  
TEXAS STATE UNIVERSITY

# The Meadows Center

The Meadows Center Educational Tours mission is to provide people of all ages with the ability to recognize Spring Lake as a unique freshwater ecosystem through interpretative interactive experiences that engages the audience in an exploration of interconnections between all living things and water.

All tours require a two-week advanced reservation. Tour dates are not guaranteed until your confirmation notice from The Meadows Center Education Office has been processed. The listed group rates apply to any group of 15 people or more. Prices subject to change without notice. Listed prices are for school groups and non-profit organizations.



# Activities for Kindergarten

## **1. Glass-Bottom Boat Ride**

Length: 30 minutes

As students glide across Spring Lake in glass-bottom boats, they have a rare opportunity to see underwater life from a different perspective. View over 1,000 springs that bubble up 150 million gallons a day of clear water from the Edwards Aquifer to form Spring Lake, the headwaters of the San Marcos River. Declared a critical Habitat by the Federal Government in 1980, Spring Lake is the home of several endangered species.

## **2. Wetlands Walk**

Length: 30 minutes

Journey over a 1/10 mile floating boardwalk through our wetlands habitat. Students will learn about what wetlands are and what species live in them. Stroll by "Turtle Island" where turtles often sunbathe and birds migrate through.

## **3. Endangered Species Exhibit**

Length: 15 minutes

Students will see live endangered species on display in this new aquarium exhibit.

## **4. The Great Frog Race**

Length: 15 minutes

Oh No! Our pretend wetlands habitat has been polluted with trash. We must race against time to save our frogs one-by-one. This fun obstacle course is sure to be a hit with Pre-K through early elementary classes.

## **5. Enviroscape 3D Watershed Model Presentation**

Length: 30 minutes

Students learn about watersheds, and point and non-point source pollution that affects water quality. Students participate in an activity where they put different types of pollution on the ground of the 3D watershed and see how rainfall creates runoff that carries that pollution into rivers and lakes. (Available for schools with 4 or less classes total)

## **6. Bug Picking**

Length: 15 minutes

Participants will discover what bugs live in the water at Spring Lake by exploring water samples.

## **7. Mapping the Meadows Center**

Length: 30 minutes

Students will delve into mapmaking during this hands-on activity to learn about the importance of maps and map-making, understand the importance of different elements of a map, and build upon foundational spatial thinking skills. Spatial ability is important for success in many fields of study, including mathematics, natural sciences, engineering, economic forecasting, meteorology, and architecture. Mapping at Meadows is part of a study we are conducting to learn about how students understand nature and maps. Teachers have the option to receive a copy of the participating students' maps by email.

Parents who do not want their child’s map to be involved in the study can sign the opt-out form. [Geography TEKS: Kindergarten: \(b\) 4A, 4B, 4C, 5A, 15B](#)



## Activity Connections with Texas Essential Knowledge Standards (TEKS)

Kindergarten Science TEKS	Applicable Activities
<b>(K.1) Scientific investigation and reasoning.</b> The students conducts classroom and outdoor investigations following home and school safety procedures and uses environmentally appropriate and responsible practices. The student is expected to:	
(A) identify and demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately;	5
(B) discuss the importance of safe practices to keep self and others safe and healthy; and	5
(C) demonstrate how to use, conserve, and dispose of natural resources and materials such as conserving water and reusing or recycling paper, plastic, and metal.	5, 6
<b>(K.2) Scientific investigation and reasoning.</b> The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:	
(A) ask questions about organisms, objects, and events observed in the natural world;	1, 2, 3, 4, 5, 6
(B) plan and conduct simple descriptive investigations such as ways objects move;	5, 6
(C) collect data and make observations using simple equipment such as hand lenses, primary balances, and non-standard measurement tools;	5, 6
(D) record and organize data and observations using pictures, numbers, and words; and	5, 6
(E) communicate observations with others about simple descriptive investigations	1, 2, 3, 4, 5, 6

<b>(K.3) Scientific investigation and reasoning.</b> The student knows that information and critical thinking are used in scientific problem solving. The student is expected to:	
(A) identify and explain an problem such as the impact of littering on the playground and propose a solution in her/her own words;	1, 2, 3, 4, 5, 6
(B) make predictions based on observable patterns in nature such as the shapes of leaves; and,	1, 2, 3, 4, 5, 6
(C) explore the scientists investigate different things in the natural world and use tools to help in their investigations.	5, 6
<b>(K.4) Scientific investigation and reasoning.</b> The students uses age-appropriate tools and models to investigate the natural world. The student is expected to:	
(A) collect information using tools, including computers, hand lenses, primary balances, cups, bowls, magnets, collecting nets, and notebooks; timing devices, including clocks and timers; non-standard measuring items such as paper clips and clothespins; weather instruments such as demonstration thermometers and wind socks; and materials to support observations of habitats of organisms such as terrariums and aquariums; and	3, 5, 6
(B) uses senses as a tool of observation to identify properties and patterns of organisms, objects, and events in the environment	5, 6
<b>(K.5) Matter and energy.</b> The student knows that objects have properties and patterns. The student is expected to:	
(A) observe and record properties of objects, including relative size and mass, such as bigger or smaller and heavier or lighter, shape, color, and texture; and	2, 3, 6
<b>(K.7) Earth and space.</b> The student knows that the natural world includes earth materials. The student is expected to:	
(B) observe and describe physical properties of natural sources of water, including color and clarity; and	1, 2, 3, 4, 6
(C) give examples of ways rocks, soil, and water are useful.	1, 2, 3, 4, 6
<b>(K.9) Organisms and environments.</b> The student knows that plants and animals have basic needs and depend on the living and nonliving things around them for survival. The student is expected to:	
(A) differentiate between living and nonliving things based on whether they have basic needs and produce offspring; and	1, 2, 3, 4, 6
(B) examine evidence that living organisms have basic needs such as food, water, and shelter for animals and air, water, nutrients, sunlight, and space for plants.	1, 2, 3, 4, 6
<b>(K.10) Organisms and environments.</b> The student knows that organisms resemble their parents and have structures and processes that help them survive within their environments. The student is expected to:	
(A) sort plants and animals into groups based on physical characteristics such as color, size, body covering, or leaf shape;	1, 2, 4, 6
(B) identify parts of plants such as roots, stem and leave and parts of animals such as head, eyes, and limbs;	1, 2, 4, 6
(C) identify ways that young plants resemble the parent plant; and	1, 2, 4, 6
(D) observe changes that are part of a simple life cycle of a plant: seed, seedling, plant, flower, and fruit.	1, 2, 4, 6

## Additional Materials

Additional information on water education can be found on the Texas Aquatic Science website at <http://texasaquaticscience.org/>. This website provides additional learning opportunities and materials for a variety of subjects concerning water, including “Water is Life”, “Water for the people and the Environment”, “Bays and Estuaries”, and many others.



## Frequently Asked Questions

**How do I book a group tour?**

You may book a tour online at <http://www.aquarena.txstate.edu/Educational-Tours/Tour-Reservation-Form.html>. If you have questions please call 512-245-7540. Our office hours will vary depending on park traffic, so please leave a message and we will call you back.

**How far in advance should I book my tour?**

We require two weeks advance notice for group tours. Please remember the days during March through August can fill up several months in advance, so please book your tour as soon as possible.

Do you have a maximum number of students that can attend the field trip?

There is not a set maximum number of students per field trip. Your tour-booking agent will discuss the best activities for your group's size when you book your tour. We recommend booking your tour early for best choice of dates.

Do you have a minimum number of chaperones required?

One teacher per class is sufficient for our tours. The one required adult should never leave the group alone with the tour guide. You may choose to bring additional teachers and parents if you wish (please check your tour confirmation for fee information). The boats will comfortably seat 25 people each, so additional adults may need to ride on a separate boat than the rest of the group.

What age groups are your programs appropriate for?

All ages. We customize our programs for your group.

I would like to do something different than listed on your website, can you accommodate my group?

We try our best to accommodate special requests.

Do I need to book a specific time for my tour?

Yes, you will book a specific date and time for your tour. Please arrive 15 minutes prior to the start time of your tour. We apologize that we are unable to push back the start times of tours. If your group is late we may need to cut a portion of your tour time. Please call 512-245-7570 and push 0 to notify us that you will be late.

What if it rains?

If it rains on your tour date you will have the option to reschedule. Please call 512-245-7570 and push 0 on the day of your tour and let a staff member know that your group will not be coming. The boats are enclosed and will still run unless there is lightning. We have limited indoor space so please dress for the weather if it is raining on your tour date.

## Booking a Tour

**Web:** <http://www.meadowscenter.txstate.edu/Education/EducationalTours.html>

**Phone:** (512) 245-7540