



# School Programs

The Houston Arboretum & Nature Center is located in the southwest corner of Memorial Park ten minutes from downtown Houston. Your students can explore forest, meadow, and pond habitats and search for the birds, mammals, reptiles, and insects that make this sanctuary home.

**Guided Field Experiences** outdoor programs provide students and teachers with hands-on science activities aligned to TEKS objectives.

**The Discovery Room** encourages students to sharpen their observation skills and enjoy hands-on exhibits. It's a welcoming place to learn about food chains and webs, habitats and life cycles.

**Curriculum Design.** If you don't see a program that suits your classroom, contact us. The Arboretum's certified teachers can design a program that will fit your specific needs and classroom curriculum.



# Guided Field Experience

Minimum 20 students/Maximum 70 students

Fee: \$6 per student

Engaging 90-minute field experiences introduce students to basic ecological concepts. An introductory lesson in the classroom is followed by hands-on activities out of doors. Science based programs help students achieve grade level appropriate TEKS.

Staff naturalists and docents utilize the 155-acre sanctuary as a hands-on laboratory. Download pre and post trip lessons at [www.houstonarboretum.org/schoolprograms](http://www.houstonarboretum.org/schoolprograms).

**TOUR TIMES:** Tuesday - Friday, 9:30 - 11 a.m. or 11:30 - 1:00 p.m.

**CHAPERONES:** You **MUST** bring one adult for every 10 students. Chaperones are responsible for the safety and conduct of their students. The program is designed for your students, please ask parents to leave younger siblings at home. Chaperones over the 1:10 requirement are charged \$6/person.

**DRESS:** Students will be more comfortable if they dress for the out of doors. Children and adults should wear closed-toe shoes for safety; no sandals please.

**RAINY DAYS:** We do not cancel in case of rain. We will provide ponchos to students, and in the case of severe weather, an alternate indoor program.



## Kindergarten

Students discover the basic needs of living things as they explore forest, field and pond habitats while learning how organisms depend on each other to survive.

### Concepts:

Animals need food, water, shelter, and space to survive.

## First Grade

Students compare the different ways in which organisms meet their basic needs. During a forest hike, students discover how all living things require food, water, shelter and space.

### Concepts:

- Habitat is the physical area where an animal lives.
- Producers, consumers, and decomposers are the roles that organisms have in the ecosystem.

## Second Grade

Discover how nature recycles nutrients through the process of decomposition. Children explore a rotting log to learn about the organisms that work on the decomposer team.

### Concepts:

- Decomposers break down stored nutrients in a rotting log.
- Consumers feed on the dead wood, or hunt other consumers around the rotting log.
- A rotting log is a habitat for many organisms.



## Third Grade

Learn about food chains and webs by exploring pond habitats. Students will classify aquatic organisms as producers, consumers, or decomposers. As wrap-up to the lesson, students will create a food web based on their observations.

### Concepts:

- Classify organisms as producers, consumers, or decomposers.
- Identify consumers as herbivores, carnivores, or omnivores.
- Outline food chains and food webs in a wetland ecosystem.

## Fourth Grade

Adaptations help organisms survive. Learn about the different adaptations that organisms have in order to live in our climate. Explore and identify adaptive characteristics of organisms found in the Arboretum's forest, ponds and meadow.

### Concepts:

- Identify and compare adaptive characteristics of organisms.
- Explore different ecosystems and predict adaptations needed for survival.

## Fifth Grade -- *Great STAAR review!*

Students will review basic ecological concepts as they explore the forest ecosystem. Discover how communities of plants and animals rely on the non-living environment as well as each other.

### Concepts:

- Describe and explain interactions that occur in the Arboretum's ecosystems.
- Explore cycles, structures and processes in simple systems.

## Contact us to create a unique program for your class

Our professional staff of certified teachers will work with you to design a program to meet your curriculum needs. Programs are designed to enhance and integrate your school's curriculum by providing hands-on, environmental experiences. Over 155 acres of forest, pond, and meadow habitats make an ideal outdoor classroom. We can create 90 minute or half day programs that are grade level appropriate, engaging and fun! For more information, contact Laurie Hudson at [ludson@houstonarboretum.org](mailto:ludson@houstonarboretum.org)

### Discovery Room Program

Minimum 15 students/Maximum 70 students

The Houston Arboretum & Nature Center Discovery Room has interactive exhibits that invite students to learn about pond, meadow and forest habitats in a fascinating and fun way.

**FEE:** \$6 per student

**EXHIBIT TIMES:** Groups can be scheduled for 45 minute periods in the Discovery Room, Tuesday through Friday. 9:30–10:15 am, 10:15–11:00 am, 11:30 am–12:15 pm, or 12:15–1:00 pm.

**CHAPERONES:** Chaperones assist children in exploring exhibits. One adult for every 10 students is required. Chaperones over the 1:10 requirement are charged \$6/person.



### Field Adventures: *A FULL Day of Hands-on Science!*

Schedule a full day for up to 140 students from 9:30 a.m. to 1:00 p.m.

Fee: \$8 per student

Students participate in both the Guided Field Experience and Discovery Room Program with a half hour lunch break.

### Water Quality Monitoring

Minimum 10 students/Maximum 40 students

Fee: \$9 per student

Grade 6 -12

Middle or High School students can participate in a survey of natural aquatic habitats. Students perform basic water testing procedures and an aquatic invertebrate survey. They will learn the importance of watersheds and identify their local watershed.



# Discovery Boxes for the Classroom

Enhance your life science curriculum with a Discovery Box. Discovery Boxes are an interactive resource to be used as a whole class or in a science station. Teachers are welcome to share the box with other classes. Curriculum, aligned with TEKS for grades 1-5, is included and teaches ecological concepts. Discovery Boxes include specimen and/or models to be used in the activities.

**Check out these boxes for an interest center, science night or to share with your teaching team!**



**Gotcha Covered** - Learn about the 5 vertebrate classes (reptiles, amphibians, mammals, birds, and fish). Investigate the similarities and differences of animal coverings by studying specimens. Discover the purpose of fur, feathers, scales, and other animal coverings.

**Houston Wildlife** - Find out what animals live in traffic lights and other city places. Observe wildlife on your school ground and learn how people can help wildlife survive in the city.

**Nature Recycles** - Examine forest specimens and match them to their job descriptions. As students match "want-ads" to decomposers and consumers, they will discover how nature recycles organic material. This box includes extension activities for recycling in the classroom.

**Reptiles** - Students learn the characteristics of reptiles by studying reptile specimens and models. Discover what different reptiles eat and create food chains that include reptiles.

**Tracks Tell Tales** - Students learn about animal adaptations and life styles based on their tracks. Rubber paw reproductions and "mud" are included to make tracks. Students interpret track stories and make their own for others to interpret.

**Water, Water, Everywhere** - Understand how important freshwater is to all organisms. Learn how your choices affect water quality and how to conserve water. Create aquatic food chains and an aquatic habitat. This box includes an extension about Houston watersheds.

Each box includes a Teacher Kit with

- Teacher's Guide
- Story and/or activity books
- Additional curriculum for up to a week of activities
- Reproducible worksheets
- Resource list of web sites
- Resource list of videos available for download

**Cost:** \$50 for 2 weeks  
(a credit card is required as a deposit)

**To schedule:** Fill out and return our reservation form at <http://www.houstonarboretum.org/discoveryboxes.asp> or contact Naletta Galbraith at 713-366-0376 [ngalbraith@houstonarboretum.org](mailto:ngalbraith@houstonarboretum.org).



# Outreach Programs - *We Come to You!*

Experienced naturalist staff will provide quality environmental education programs that are hands-on science instruction. Programs are 45-minutes for up to 30 students.

**Programs are appropriate for GRADES K-5 and are aligned to the TEKS.**

**Skins & Skulls**—Learn about the tools that predators use to track down and kill their prey.

**Adaptations** – Investigate the various body parts and behaviors that animals use to survive in their environment.

**Food Chains** – Map the flow of energy in a food chain and discover interesting facts about the organisms included.

**Gotcha Covered** - Have you ever seen a rabbit with a raincoat or a snake with a shirt? Explore the five vertebrate groups and discover how their different body coverings are uniquely suited to them.

**City Critters** – Discover the ways that animals have adapted to living near humans by finding the things they need in our neighborhoods, cities, and school yards.

## To Schedule Outreach

Submit an Outreach Inquiry form online at [http://www.houstonarboretum.org/school\\_outreach.asp](http://www.houstonarboretum.org/school_outreach.asp) or call the Arboretum 713-366-0424 to speak with the Outreach Manager. Date availability will be confirmed by the Outreach Manager within 2 business days.

**Times:** Call for available dates. First presentation at 9:30 am. We can teach up to 4 presentations per scheduled day.

**Fee:** **\$125** for the first presentation, **\$80** for each additional presentation of the same topic on the same date. Fee is for a maximum of 30 children per presentation.

**Mileage:** \$0.51 per mile, roundtrip

## Professional Development and Educator Resources

**Nature 101 Classes** \$25 per class

An entertaining way to earn SBEC credits. Learn about the natural history, plants and animals native to our area. Each 2 hour class includes hands-on projects and fun, educational activities. For a schedule log onto [www.houstonarboretum.org/schoolprograms](http://www.houstonarboretum.org/schoolprograms).

## E-news

The Education Program Newsletter keeps you in the loop on the latest Arboretum programs, workshops and special events just for educators.

Sign up at [educator@houstonarboretum.org](mailto:educator@houstonarboretum.org).

*Explore nature in the center of the city.*





## Field Trip Reservation Request

YOUR VISIT IS NOT GUARANTEED UNTIL THE CONTACT TEACHER RECEIVES CONFIRMATION AND PAYMENT IS MADE.

Fax or mail this form 713-682-2539. 4501 Woodway Dr. Houston, TX 77024

Contact Registrar Carol Taylor 713-366-0421 for more information.

### Step 1: School Information

School Name: \_\_\_\_\_ Grade: \_\_\_\_\_ #of Classes: \_\_\_\_\_

School Address: \_\_\_\_\_ City: \_\_\_\_\_ State: TX Zip code: \_\_\_\_\_

School Telephone: \_\_\_\_\_ School Fax: \_\_\_\_\_

Contact name: \_\_\_\_\_ E-mail: \_\_\_\_\_

Home or Cell phone: \_\_\_\_\_ Today's Date: \_\_\_\_\_

Does your group have special needs? \_\_\_\_\_

### Step 2: Select Date

Please select three dates in order of preference. Programs are scheduled Tuesday – Friday.

\_\_\_\_/\_\_\_\_/\_\_\_\_

1<sup>st</sup> Choice

\_\_\_\_/\_\_\_\_/\_\_\_\_

2<sup>nd</sup> Choice

\_\_\_\_/\_\_\_\_/\_\_\_\_

3<sup>rd</sup> Choice

### Step 3: Select Program

**\$8/student for both Guided Field Experience & Discovery Room - \$6/student if just scheduling one program**

We can accommodate a **total of 140 students** only if both the Guided Field Experience & Discovery room are scheduled.

**Guided Field Experience**

**9:30 – 11:00am    11:30-1:00 pm**

Guided trail tour – Grade level topic

\*Min 20 students / Max 70 for each time slot

\_\_\_\_\_ (# of students)

**Discovery Room Program**

Discovery Room & Discovery Pack

\*Min 15 students / Max 70 for each time slot

\_\_\_\_\_ (# of students)

**Discovery Pack Rental** (Scavenger Hunt Activity)

\*No minimum / Max 50 students (5 packs) for each time slot

\_\_\_\_\_ (# of packs)

(\$10 per pack with supplies for 10 students)

## Step 4: Determine Fees Due

Description	Amount	Price	Cost
<b><u>Educational Programing</u></b>			
Free chaperones/Teachers (1:10 ration K – 12 <sup>th</sup> grade)	_____ x	\$0.00	= \$ _____
Paid adults (above the required chaperone ratio)	_____ x	\$6.00	= \$ _____
Guided Field Experience & Discovery Room Program	_____ x	\$8.00	= \$ _____
Guided Field Experience & Discovery Center (Title I rate)	_____ x	\$6.00	= \$ _____
September, December, January, and February only			
Guided Field Experience only	_____ x	\$6.00	= \$ _____
Discovery Room Program only	_____ x	\$6.00	= \$ _____
Discovery Pack Rental	_____ x	\$10.00	= \$ _____
*Water Quality Monitoring (6 <sup>th</sup> – 12 <sup>th</sup> only)	_____ x	\$9.00	= \$ _____
<b>TOTAL</b>			<b>= \$ _____</b>
<b><u>Souvenir Options</u></b>			
Houston Arboretum & Nature Center Pencils	_____ x	\$.50 each	= \$ _____
Souvenir Grab Bag (No refunds. Min. Order 20)	_____ x	\$5.00 each	= \$ _____
<b>TOTAL</b>			<b>= \$ _____</b>
<b><u>Method of Payment</u></b>			
<input type="checkbox"/> Please charge to credit card number _____ Exp. date _____			
<input type="checkbox"/> Mailing a check once date is confirmed			

### Step 5: Send this form by Fax 713-682-2539 or Mail

Houston Arboretum & Nature Center 4501 Woodway Dr Houston, TX 77024

**Step 6: Upon confirmation of date – Payment is made in full** Payment is due in full upon confirmation of your date. Accepted forms of payment are organizational check, Visa, Master Card, American Express, and Discover.

**CANCELLATIONS: Program fees are non-refundable.**

**RAINY DAYS:** The Arboretum does not cancel in case of rain. We will provide ponchos to students or an alternate indoor program.

**CHAPERONES:** You MUST bring one adult for every ten students to. Chaperones are responsible for the safety and conduct of their students.

**DRESS:** Please dress for an outdoor experience. Students should wear closed-toe shoes. No sandals please.