

2018-2019 Educator's Guide



Recognized, curriculum-aligned education programs, many in the 64 million dollar Rory Meyers Children's Adventure Garden, where science and fun become one



- (3) THE MOODY OASIS WAS USED
 - While it's a great place to take a break, this rooftop garden retreat also provides an important function; it insulates the building below and reduces our overall energy consumption. When you're relaxing at The Moody Oasis, you'll enjoy a panoramic view of White Rock Lake. Be sure to look through the scopes at the many historic buildings and houses across the lake. You may even catch a glimpse of some of the wildlife that calls White Rock Lake home.
- 7 PLANTS ARE ALIVE 100 K234 100

You know people are alive, but did you know that plants are alive and have parts that must work together to keep the plant well? Plants have different body parts just like you. Every part does something special to help the plant survive. Today you get to enter a world of giant plants to see how all the parts work. You may build a big flower puzzle, make your own growing plant pictures, or see how water moves through a healthy plant. Real plant parts sometimes look different, but they all work much the same way.

8 KALEIDOSCOPE ardath MAIR

The Kaleidoscope gallery uses color, light and structure to demonstrate how nature influences art and architecture. There are patterns in nature that we can use to create art and solve math equations. You will find these patterns in sand, water and landscapes here, but will be challenged to use them in new and unique ways. Discover tessellations, fractals and patterns and create your own artistic designs on our touch screens.

T. BOONE PICKENS PURE ENERGY (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (a variety of turbines to determine which machines are the most effective. Test wind speed using fun anemometers and step inside our wind machine to feel its power. Archimedes' screw and other machines will teach about harnessing the power

12 TEXAS NATIVE WETLANDS IN MARIE UP

Did you know that wetlands clean the water, provide habitats for many plants and animals, and help control flooding? They are a great resource for our state. The plants in our wetlands are all native Texas wetland plants. This gallery gives you the opportunity to walk on trails, over bridges, around the wetlands, and to see the plants and animals that make up large parts of our great state.

14 HABITATS ESTABLISHED LIFE

Here you will see how plants and animals live and thrive together in a woodland ecosystem. Walk the woodland trails and you will see that habitats provide shelter, space, food and water to the plants and animals that live there. As you pass the signs for habitat needs, look around at all the models and exhibits that show how people, plants and animals interact and how they adapt to changing environments.

15 OMNIGLOBE SUPPLY EARTH ENERGY

Located in the Exploration Center's Globe Room, the five-foot-tall OmniGlobe provides an interactive model of the planets Digital images projected onto the sphere provide a view of everything from the planets in our solar system to up-to-date weather events and population density here on Earth.

16 FARTH CYCLES 2168th EARTH SPACE

Learn all about the forces that affect our ever-changing planet. Earth's geology, weather and its place in space are all explored here. Inset in the pavement is a geologic timeline that tells the time periods from the prehistoric to today. You will also see illustrations of the fossils of organisms that lived during each of those time periods. Explore a cave or visit a station that simulates erosion. Get hands-on with your planet!

(19) THE AMAZING SECRET GARDEN ETGRALLAGES MAIN

Follow a circular maze through winding paths of tall bushes. Read cardinal directions, find cryptic clues and peek through periscopes in order to figure out which way to go in this secret garden. You'll encounter whisper tubes, periscopes, a floating granite ball and dance chimes along your path. The castle's flag is in the middle of the garden, but beware of the dragons' breath as you pass through a row of menacing statues. You may even find some paths have changed since you began your adventure.

21) THE INCREDIBLE EDIBLE GARDEN WAS USE

Everything that is alive must eat, and the choices we make about what we eat keep us healthy, strong and smart. From ancient times to today, man has gotten food from plants. Did you have cereal at breakfast today? It came from a plant. Bananas and fruit juice come from plants, too. Bread is most often made from a plant called wheat. The vegetables on your plate and your chocolate dessert were grown for you to eat. Stroll through The Incredible Edible Garden and learn about the value plants provide to our health.

DALLAS ARBORETUM AND BOTANICAL GARDEN

WELCOME EDUCATORS!

The Rory Meyers Children's Adventure Garden, an 8-acre natural wonder that delights, educates and entertains nearly 300,000 students and visitors each year by connecting them with nature, is the cornerstone of our education efforts at the Dallas Arboretum. The Children's Adventure Garden features 17 interactive galleries with over 150 kid-friendly, STEM-focused exhibits to explore. All-new programming this fall such as Tree Trek in the Habitats gallery, among other programs.

In the Main Garden, choose one of multiple new classroom programs including Earth Rocks! and The Scoop on Soil for younger students and Garden Design Challenge and Plant Parents for older students. We also offer a full lineup of professional learning opportunities for teachers, too!

Whether you choose one of our captivating field trip programs, outreach at your campus, or an in-depth afterschool series, the Dallas Arboretum will cultivate a connection to nature and inspire your students to become environmental stewards. We are more than just a beautiful garden. We grow minds, too!

Did you know?

All teachers receive free admission year-round to plan their field trips.

We offer a full year of professional learning opportunities in the garden.

We also serve your scout, homeschool and family groups with custom programming including family workshops and overnights!



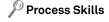
KNOW BEFORE YOU GO

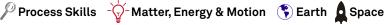
- Add education@dallasarboretum.org to your safe senders list!
- Make sure you know whether your group is arriving to the Children's Adventure Garden (Gate 3) or Main Garden (Gate 1).
- Students must be with an adult at all times, at a ratio of 8:1.
- Bring labeled containers for lunches. Wheeled coolers work best as we are unable to provide assistance.
- Plan to be outdoors wear walking shoes and raincoats/jackets if appropriate.
- We provide your program times, but please group your students and assign chaperones before arrival to the Arboretum.
- We send standards-aligned pre- and post-visit resource guides for every program.

TABLE OF CONTENTS

- CHILDREN'S ADVENTURE **GARDEN LEARNING GALLERIES**
- MAIN GARDEN CLASSROOM LABS
- 10 MAIN GARDEN OUTDOOR **PROGRAMS**
- 11 OUTREACH PROGRAMS
- 12 AFTERSCHOOL PROGRAMS
- 13 YEAR AT A GLANCE
- 14 POLICIES | FINANCIAL AID
- 15 PRICING
- 16 THANKS TO OUR DONORS

TEKS CORRELATIONS - See website for complete listings.









RORY MEYERS CHILDREN'S ADVENTURE GARDEN



If our education system is going to keep up with the needs for our country, we have to interest children at a much earlier age in science, engineering and math. I believe that the Dallas Arboretum's Rory Meyers Children's Adventure Garden does that by teaching science creatively.

- Former U.S. Senator Kay Bailey Hutchison



LEARNING GALLERY PROGRAMS

RESERVE AN INSTRUCTOR-GUIDED GALLERY PROGRAM THAT BRINGS SCIENCE TO LIFE IN OUR AMAZING, INTERACTIVE OUTDOOR MUSEUM AND GARDEN. RESERVATIONS INCLUDE PRE-AND POST-VISIT RESOURCE GUIDES AND ACCESS TO OUR ENTIRE GARDEN. ALL CONTENT IS CUSTOMIZED FOR YOUR SPECIFIC GRADE LEVEL NEEDS.



LITTLE SPROUTS GARDEN ADVENTURES

SQUIRREL ADVENTURE K-1ST GRADE

Help Nuts the Squirrel find a new home! This interactive outdoor program focuses on the changing seasons and animals' habitat needs. Students listen to a big book story about the life of a squirrel and engage with characters in an outdoor puppet show. [Offered August-December]

BUTTERFLY ADVENTURE K-1ST GRADE

What will happen to Cathy Caterpillar? This fun, interactive program brings metamorphosis to life with a big book story about the butterfly life cycle and an outdoor puppet show. [Offered March-June]

RORY MEYERS CHILDREN'S ADVENTURE GARDEN



LEARNING GALLERY PROGRAMS

RESERVE AN INSTRUCTOR-GUIDED GALLERY PROGRAM THAT BRINGS SCIENCE TO LIFE IN OUR AMAZING AND INTERACTIVE OUTDOOR MUSEUM AND GARDEN. RESERVATIONS INCLUDE PREAND POST-VISIT RESOURCE GUIDES AND ACCESS TO OUR ENTIRE GARDEN. ALL CONTENT IS CUSTOMIZED FOR YOUR SPECIFIC GRADE LEVEL NEEDS.

HABITATS

AT HOME IN THE WILD K-2ND GRADE

Students first explore the basic needs of plants and animals by modeling a food web in a giant eagle's nest with larger than life eggs. Then, students walk through a wooded habitat and a meadow, using a grade-specific trail guide to investigate what lives in a rotting log, a tree snag and in the tree tops.

NEW! TREE TREK 3-8TH GRADE

Trees are amazing! How do many of these giant plants outlive humans? Some trees at the Arboretum are over 100 years old! Students discover the science of studying a tree and, through hands-on activities, investigate what they need to live a long life.

LIVING CYCLES 1ST-5TH GRADE

This program is all about growth and change. Students compare the physical appearance of adults and offspring to assess how plants and animals change over time. Students investigate pollinators and their role in the ecosystem. In the gallery, students identify and observe the role of decomposers, methods of seed dispersal and pollination.

MOODY OASIS K-6TH GRADE MONARCH MANIA

Texas is a prime spot to observe monarch butterflies - it lies between the breeding grounds to the north, in Canada, and the overwintering areas in Mexico. Our certified Monarch Waystation is the perfect place to observe monarchs and many other pollinators. In this program, students learn all about the fascinating life of the monarch butterfly and what humans can do to help them survive. Students may even spot monarchs in the garden! [Peak times are typically early October and late March.]





PATH TO POLLEN

Are insects our friends or foes? Are they pests? No! 75% of all flowering plants need animal pollinators. This includes the majority of the plant foods in our diet. In this program students learn about the important relationships between plants and pollinators and how each are adapted to benefit from one another.

INCREDIBLE EDIBLE K-6TH GRADE

Which foods provide us with the most energy? How much of our plates should be fruits and vegetables? Where do we get our food? In this program, students explore healthy food choices, uncover where food comes from and investigate new techniques currently used in urban farming.

PLANTS ARE ALIVE K-2ND GRADE PUMPKIN POWERED

Each autumn, the Arboretum is transformed by thousands of pumpkins, gourds and squash. In this seasonally-spiced version of our Plants are Alive program, students learn about the differences between living and nonliving things and explore the structures and functions of a pumpkin plant. Each class receives pumpkin seeds to take back to school for planting and further observation! Don't miss our breathtaking pumpkin display in the Main Garden before or after your program. [Offered 9/24-11/16 only]

ROOT TO FRUIT

How do we know that plants are alive? In this program, students learn about living and nonliving things through hands-on activities and songs. Students explore the gallery to investigate the similarities and differences between the same parts of different plants and share their findings.

🔑 Process Skills 😽 Matter, Energy & Motion 💲 Earth 🛕 Space 🔌 Life







TEXAS NATIVE WETLANDS

WETLANDS BIOLOGIST 1ST-8TH GRADE

How healthy is our habitat? In this program, students explore our Texas Native Wetlands as they collect data on our outdoor, island classroom. Students make connections between the living and nonliving parts of the ecosystem to determine the health of our waterway using cutting edge scientific tools. 🔎 🍖

FRESHWATER ECOLOGIST 4TH-8TH GRADE

In this program, students work as ecologists to uncover the diversity of life found in a wetland ecosystem. Using gradeappropriate scientific equipment, students learn to make their own wet slides from a water sample and make observations and inferences about the creatures living in our Texas Native Wetlands. Students will explore organisms from various kingdoms that make up the unseen freshwater ecosystem.

EARTH CYCLES

EARTH FROM SPACE 2ND-8TH GRADE

Life on Earth is dominated by regular and repeating patterns. In this program, students learn all about the relationships between the seasons, moon phases, shadows and planets through hands-on demonstrations and a focused student activity in the gallery. If you've been struggling to show the connections between these topics, this is the class for you!

DYNAMIC EARTH 4TH-8TH GRADE

The Earth is always changing. Weathering, erosion and deposition and the movement of tectonic plates cause slow and rapid changes to the Earth's surface. In this program, your students will participate in hands-on inquiry with actual rock samples and observe natural processes of change at our interactive stream table. A focused student activity helps students discover the dynamic, natural world as they explore the gallery. Bring Earth science to life in our outdoor learning lab!





KALEIDOSCOPE 3RD-8TH GRADE

Explore how science is the study of natural patterns and how humans make use of these patterns. Students will first identify patterns regularly found in nature and then investigate how patterns can be analyzed with math by looking at the Fibonacci sequence. Students then explore the gallery and quantify the most commonly observed shapes in plants. They will also discuss how shapes are adaptations and how humans have used natural shapes as inspiration for our designed world.

PURE ENERGY 4TH-6TH GRADE

In this program students develop a new understanding of alternative energy sources and the transfer of energy. Students discuss forms and sources of energy and work together to create a living circuit. Then, small teams explore the water, solar and wind islands to record data on these three sources of renewable energy.





OMNIGLOBE PLANETARY VOYAGE 3RD-8TH GRADE

Travel through the solar system and beyond in our Globe Theatre. During this program, students view 360 degree imagery of the planets through NASA satellite views projected on our five-foot-tall OmniGlobe. They discover what makes each planet unique, including our irreplaceable planet Earth. This captivating program ensures high student engagement as they become the experts on a wide range of science topics.





POWERFUL OCEANS 3RD-8TH GRADE

Earth's oceans play an incredible role in creating and regulating weather, climate and other vital environmental systems. In this program, students discover these powerful bodies of water from an astronaut's perspective on the largest OmniGlobe in Texas! Students observe animated ocean currents, hurricanes and real-time weather patterns from satellite data projected on our OmniGlobe and explore why organisms across our planet depend on the health of the oceans. ρ











CLASSROOM LABS

RESERVE AN HOUR-LONG CLASSROOM LEARNING EXPERIENCE AT THE VISITOR EDUCATION PAVILION IN THE MAIN GARDEN TO EXPLORE A VARIETY OF LIFE, EARTH AND PHYSICAL SCIENCE TOPICS. RESERVATIONS INCLUDE ADMISSION TO THE MAIN GARDEN AND CHILDREN'S ADVENTURE GARDEN. ALSO AVAILABLE AS OUTREACH PROGRAMS AT YOUR SCHOOL!

PUMPKIN CIRCLE K-2ND GRADE

After distinguishing between living and nonliving things, students explore the basic needs, parts and functions of pumpkin plants. Students discuss the life cycle of a pumpkin and plant their own seeds to take back to school for observation. A walk through the Arboretum's Pumpkin Village is the perfect culmination of this lesson. [Offered 9/24-11/16 only] ρ

SEEDSATIONAL K-2ND GRADE

Students classify living and nonliving things and explore the fascinating world of plants they see throughout the garden. Students investigate the basic needs, parts and functions of plants and their life cycles. Students explore how fruits act as a suitcase for seeds and plant their own seeds to take back to school for observation. [Offered 08/01-09/21 and 11/26-07/31 only] ρ

FLIGHT OF THE HONEYBEE K-2ND GRADE

In this lab, students take on the roles of honeybees and flowers to act out the process of pollination and explore the interdependent relationship between these organisms. Students closely examine honeybee specimens and a flower model to better understand how flowers attract pollinators and how honeybees gather nectar and pollen. p

WHAT'S FOR DINNER? K-2ND GRADE

Like all ecosystems, the Arboretum is a complex and active place, filled with interconnected organisms. In this lab, students explore small but significant members of our ecosystem: pill bugs. Students observe terrariums with live organisms to investigate living and nonliving things, basic needs of organisms and energy transfer in food chains. 🕖 🉈





PLANT DETECTIVES K-2ND GRADE

Do all leaves look the same? What about stems and roots? In this lab students identify basic plant parts and investigate plant diversity by comparing and contrasting the unique structures of live plants. Older students also explore how different structures allow plants to meet their needs. \mathcal{D}

NEW! EARTH ROCKS! K-2ND GRADE

Introduce your students to the world of geology as they take a closer look at rocks. In this program, students observe a diverse sample of rocks and sort the rocks by size, shape, color and texture. Students also observe a variety of everyday products that are made from rocks and identify the properties of the rocks used to make each product. 🔎 🏫

NEW! THE SCOOP ON SOIL K-2ND GRADE

Take a closer look at soil! Students work in groups to observe a soil sample from the Arboretum grounds and sort out the components that make up the soil. Groups then compare their observations with each other and examine how scientists learn from samples. After discussing characteristics of soils that support plant growth, students set up an investigation to determine what kind of soil carrots grow best in. Each class will take two pots of planted carrot seeds back to school to complete the investigation. ρ

WONDERS OF WATER K-2ND GRADE

Explore the wonderful world of water! Students first use tools to observe the physical properties of water in the solid, liquid and gas states. They then investigate how this essential natural resource supports plant growth.

RESTLESS EARTH 3RD-5TH GRADE

Every place has a story. In this lab, students study maps to identify features of Earth's surface. They then explore the slow processes that create geological change: weathering, erosion and deposition. 3rd grade students investigate how these processes lead to the formation of soils, and older students identify how these processes lead to the formation of landforms. Students use this information to explain why certain places look the way they do and predict how areas could change in the future.

WATER WORKS! 3RD-5TH GRADE

Water has some amazing properties! Students take a closer look at the physical properties of water and work in teams to create a usable water wheel, showing how this natural resource can serve as a renewable source of energy.



IT'S A BUG'S LIFE 2ND-5TH GRADE

The Arboretum is home to hundreds of plant and animal species, including many bugs! In this program, students identify 'bug' as an informal name given to terrestrial arthropods and observe live organisms to identify the traits that make insects different from other arthropods. Students look closely at arthropod adaptations that support survival in different environments and investigate the unique life cycles of different organisms, including complete and incomplete metamorphosis. \mathcal{D}

BUZZ ON BEES 3RD-5TH GRADE

Honeybees are essential to our food production and their numbers have declined in recent years. In this problem-based lab, students collect and analyze data from different hives to identify the likely causes of Colony Collapse Disorder and explore what they can do to help. \bigcirc

PLANT SECRETS 3RD-5TH GRADE

Although the Arboretum is home to many plants, not all the plants in our gardens are adapted to thrive in the Dallas area. In this lab, students make observations of a diverse selection of plants from the ecoregions of Texas and explore how each plant's structures allow it to survive in a particular environment. Emphasis is placed on supporting claims with evidence.

DISAPPEARING ACT 3RD-6TH GRADE

What happens when an organism in an ecosystem disappears? Students first investigate three organisms: white-tailed deer, post oak trees and grey wolves and then create a model of the Post Oak Savannah to actively simulate how the local extinction of wolves in this area affects all components of the ecosystem. Each student has the opportunity to act as either a wolf or a deer in this engaging, interactive lab.

NEW! GARDEN DESIGN CHALLENGE 3RD-12TH GRADE

What environmental factors and landscape design choices must our horticulture staff consider when designing our seasonal plantings? In this new offering, students work with actual Arboretum plant lists and design notes to create a landscape in the garden. Follow up the class with a visit to the actual garden students just designed!

CSI IN THE GARDEN 5TH-8TH GRADE

Chemistry is everywhere, even in the soil beneath our feet. During this lab, students assume the role of a crime scene investigator and use a soil test kit to look at the chemical components of various soil samples to determine if fictional suspects were at the scene of a crime. Students learn about the importance of one of Earth's most valuable resource, soil, and the chemical components that support plant growth.

NEW! PLANT PARENTS: PROPAGATION 101 6TH-8TH GRADE

Investigate how one plant can become many. All plants can do this on their own, but often, people - farmers, gardeners, scientists and kids - help in various ways. Sometimes seeds are not the easiest way to get new plants. Over time, plants have adapted many ways to survive. In this hands-on lab, learn about a few of the other ways plants propagate.





Looking for an experience at your campus? See page 11 for a variety of options, including all of these classroom labs!



TEXAS NATIVE PLANT LAB

3RD-8TH GRADE

From plains to the coast, and the piney woods to mountains and basins, Texas is home to a great diversity of flora. This program focuses on plants which are specially adapted to survive in our state's diverse ecosystems. Through hands-on investigations utilizing digital equipment, students refine their scientific observation skills while exploring cacti, succulents, grasses and wildflowers in this educational garden. Get up close and personal with some of our state's most fascinating plants!

EXPLORING ELEMENTS OF PHOTOGRAPHY

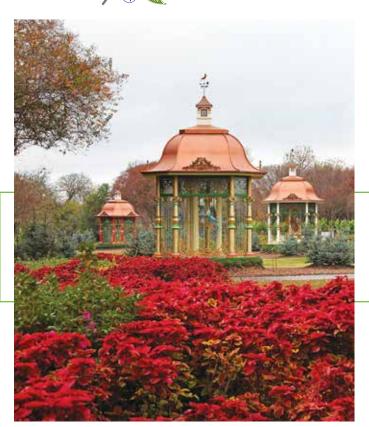
K-5TH GRADE

Students investigate the basic elements of photography and analyze a photographer's process in capturing an image of nature in this Arboretum educator-led program. Students should bring personal or campus technology to create their own nature art during the program.

NATURE'S WORKS OF ART

K-5TH GRADE

Students complete three stations investigating the beauty and wonder of trees and flowers that have enchanted artists for centuries. An Arboretum educator leads students on an investigation to explore color, shape and texture in nature and highlights the necessary artistic skills in a variety of jobs at the Arboretum. \mathcal{P}







Main Garden Classroom Lab programs are available for all grades. See pages 6-7 for full details.

ART AT THE ARBORETUM

K-5TH GRADE

Immerse your students in nature as they explore the beauty and wonder of Dallas' outdoor science laboratory. A teacher's guide and student journals are provided at check-in for this self-led artful trip around the Main Garden. Don't forget your pencils!

12 DAYS OF CHRISTMAS GUIDED TOUR

Let us lead your students through our holiday tradition, the 12 Days of Christmas display. Through history and song, your little ones will instantly be in the spirit of Christmas! Then, follow up your tour with a self-guided visit of our gorgeous garden grounds. [Offered 11/12-12/14 only]

OUR PLACE AT YOUR PACE

K-12TH GRADE

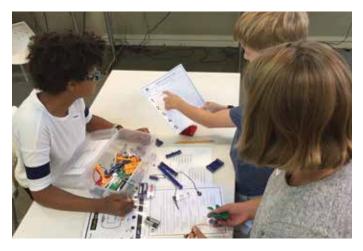
Looking for something a little more flexible? Explore the Main Garden of the Arboretum with your student group at your own pace and we will provide you with grade-specific student journals to engage your class during the visit. Children's Adventure Garden admission not included.





NATURE NATURALLY

LET US BRING OUR LEARNING EXPERIENCES TO YOUR SCHOOL! BOOK A NATURE NATURALLY PROGRAM TO BRING ANY OF OUR CLASSROOM LABS TO YOUR CAMPUS. OUR PROGRAMS EXPLORE A VARIETY OF LIFE, EARTH AND PHYSICAL SCIENCE TOPICS. PROGRAMS CAN ACCOMODATE UP TO 30 STUDENTS PER SESSION. SEE PAGES 6-7 FOR COMPLETE CLASSROOM LAB OFFERINGS - AND BE SURE TO COMPLETE AN OUTREACH REQUEST FORM WHEN BOOKING!





SUPPORT SCIENCE LEARNING YEAR-ROUND: BOOK MULTIPLE OUTREACH PROGRAMS FOR ALL GRADE LEVELS AT YOUR CAMPUS TO RECEIVE OUR BEST PRICING! CONTACT US AT EDUCATION@DALLASARBORETUM.ORG WITH INQUIRIES.



AUDITORIUM

A PUPPET SHOW, COSTUMES AND LARGER-THAN-LIFE MODELS MAKE THESE 45-MINUTE INTERACTIVE PROGRAMS AN EXPERIENCE YOUR STUDENTS WON'T FORGET. AUDITORIUM PROGRAMS CAN ACCOMODATE UP TO 100 STUDENTS PER PERFORMANCE.

WISHING FOR WINGS K-2ND GRADE

Students learn about the characteristics of butterflies including their basic needs, the unique stages of their life cycle and metamorphosis through an interactive puppet show, costumes and larger-than-life models. \mathcal{D}

NUTS THE SQUIRREL K-2ND GRADE

Students are introduced to the concepts of seasonal change, adaptations and habitats through an interactive puppet show, costumes and larger-than-life models. 🔎 🍖



"Since 2014, we have partnered with the Arboretum to deliver the Nature Naturally Outreach Program sessions as an extension of our curriculum, and this collaborative partnership has contributed to significant academic growth in our science achievement."

- Ken Rabago-Fernandez, Instructional Coach, Dallas ISD





AFTERSCHOOL

INVITE THE DALLAS ARBORETUM TO YOUR SITE TO MAKE AFTERSCHOOL A FUN AND ACTIVE LEARNING EXPERIENCE. THESE HIGHLY INTERACTIVE INDOOR AND OUTDOOR CLASSES ALLOW STUDENTS TO EXPLORE NATURE BEYOND THE CLASSROOM WALLS. ALL PROGRAMS EXTEND CLASSROOM LEARNING TIME WITH CLEAR ALIGNMENT TO THE STATE STANDARDS.

PROGRAM DETAILS

Each 7-week unit consists of one weekly 90-minute lesson from the topics listed below. Discounts may apply for the purchase of multiple units.

4TH-5TH GRADE UNITS

DIVERSITY OF LIFE

Students learn that within an ecosystem, producers, consumers, decomposers, predators and prey have unique adaptations which allow them to occupy diverse niches. All of these organisms work together forming food chains and food webs which enable an ecosystem to survive. Students investigate different plant and animal adaptations through hands-on activities and experiments. 🔊 🍖



Students learn about the sun's role in producing energy and the flow of energy from the sun to plants to people. They investigate and compare renewable and non-renewable energy sources, explore alternative energy and conduct experiments to better understand electricity. Hands-on activities, role-playing and outdoor activities make this a fun and active learning experience.



2ND-3RD GRADE UNITS

PLANTS FOR SURVIVAL

Students discover plant parts, their functions and life cycles as they investigate real plants. They learn how a plant is an important part of food chains and webs and how living organisms depend on them. They explore ecosystems and plant adaptations, as well as the human impact on the environment. Students record their learning in a nature journal as they take part in classroom investigations and scientific exploration in their schoolyard. ρ

BUTTERFLIES, BEES AND BLOSSOMS

In this unit, students discover the basic needs of insects, while learning about their body parts and life cycles. Students will make use of models, maintain a student journal and observe living specimens throughout the seven weeks. They also dissect real flowers and explore their schoolyard to investigate pollinators and interdependence in this fascinating, interactive program.



1ST-5TH GRADE UNIT

LEARN, GROW, EAT & GO!

Looking to get more out of an existing garden on your campus? This customizable unit is the perfect afterschool program for you! LGEG grows good kids through an interdisciplinary program combining academic achievement, gardening, nutrient-dense food experiences, physical activity, and school and family engagement.





AUTUMN AT THE ARBORETUM

September 22 - November 21 90,000 pumpkins, gourds and squash

Seasonal favorites:

Pumpkin Circle classroom lab and Pumpkin Powered Children's Adventure Garden programs available while openings remain!



DALLAS BLOOMS A SOUTHERN BEAUTY

February 23 - April 7 500,000 blooming bulbs

Spring is our busiest season in the garden, so be sure to reserve your top dates early. Nothing beats a trip through the garden to see our beautiful spring floral displays after your teacher-led program.

SUMMER LEARNING

Cool Science Investigations Book us for your summer school programs!

Curb the summer learning gap and make science fun with standardsaligned and hands-on custom programming for your K-5 students. We will work with you to create the perfect life and earth science adventure for summer learning!



RESERVATION POLICIES

ADMISSION

All on-site Arboretum educator-led field trips include access to the Children's Adventure Garden for K-8th grade from March-December. Self-guided and high school field trips do not include access to the Children's Adventure Garden. Please note: A Tasteful Place and the DeGolyer House are not open to school groups. We kindly ask you notify parents to avoid these areas.

PROGRAMS AND PRICING

Program availability and pricing are subject to change. Outreach programs outside of Dallas County are subject to a travel fee. Most programs are eligible for Learning Partners funds for DISD schools. Visit dallasarboretum.org for the most current program pricing and travel fees.

CHANGES, PAYMENTS AND REFUNDS

A non-refundable deposit is due within 10 days of making your reservation (\$50 for reservations totaling less than \$500, \$100 for reservations over \$500). Final payment is due two weeks prior to visit date. Refunds will only be made in the event of garden closings due to inclement weather or other issues deemed serious enough by the Dallas Arboretum to warrant cancellations. No other refunds will be issued. All deposits are nonrefundable. The Arboretum does not issue refunds or tickets for absent group members.

All schedule and attendance changes must be made no later than two weeks before your visit. If you need to reschedule or cancel your reservation, you must email Reservations at education@dallasarboretum.org at least two weeks before your scheduled visit in order for your payment to be applied to a new visit date.

SPECIAL NEEDS

Please let the Reservations Department know if you are bringing children with special needs in need of specific accommodations.

MEMBERSHIP

Dallas Arboretum membership or complimentary tickets are not valid for participants in scheduled educational field trips, unless specifically advertised on our website, including chaperones.

CHAPERONES/ADULTS

Schools are required to maintain the 1:8 adult to student ratio at all times, with those teachers/chaperones receiving free admission. All teachers are counted towards this ratio. Additional adults will be required to pay normal admission prices and may not be able to attend scheduled programs due to space limitations. Non-school vehicles are required to pay normal parking price. Discounts may be available online.

SIBLINGS/STROLLERS

Education experiences are only open to school-aged children included in the group reservation. Siblings and strollers should not be brought with chaperones and may be refused entry to educational programs.

FINANCIAL AID

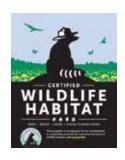
The Arboretum offers financial assistance of up to 50% off student costs for Title I schools and bus transportation stipends of \$100, on a limited basis, for Arboretum teacher-led educational programming. Please complete the Financial Aid Request Form on the Arboretum's website at dallasarboretum.org/ financialaid. A Field Trip or Outreach Request Form must be submitted at the same time to be considered for financial aid. Financial Aid Request forms submitted after a field trip has been approved will not be honored.



AT THE ARBORETUM	STUDENT PRICE*	LENGTH OF PROGRAM	MAXIMUM PER GROUP
CHILDREN'S ADVENTURE GARDEN			
Learning Gallery Program	\$10	45 minutes	25 students
Little Sprouts	\$10	30 minutes	90 students
MAIN GARDEN			
Classroom Labs	\$10	60 minutes	30 students
Guided 12 Days of Christmas	\$10	60 minutes	30 students
Texas Native Plant Lab	\$10	60 minutes	30 students
Exploring Elements of Photography	\$10	60 minutes	30 students
Nature's Works of Art	\$10	60 minutes	30 students
Middle School / High School custom program	\$15	60 minutes	30 students
MAIN GARDEN SELF-GUIDED			
Our Place at Your Pace	\$8	N/A	N/A
Art at the Arboretum	\$8	N/A	N/A

*BOOK ANY FIELD TRIP (EXCLUDING CUSTOM) AT THE ARBORETUM FROM AUG. 1-SEPT. 29 OR JAN. 1- FEB. 28 AT OUR OFF-PEAK RATE OF JUST \$5 PER STUDENT!

OUTREACH	ADDITIONAL INFORMATION	LENGTH OF PROGRAM	MAXIMUM PER GROUP	PRICE
Nature Naturally	Minimum of 4 bookings per school per day	45 minutes	25	\$125 per class Oct-Nov / Mar-May \$100 per class Aug-Sept / Dec-Feb
Auditorium Program	Minimum of 2 bookings per school per day (or additional fees may apply)	45 minutes	100	\$250 per program
After School Program	7-week unit	1.5 hours each lesson	25	\$1505 per unit; discounts for multiple units purchased









8525 Garland Road • Dallas, Texas 75218 214-515-6540 • Fax 214-515-6578 dallasarboretum.org

PLEASE SHARE THIS GUIDE WITH OTHER TEACHERS IN YOUR SCHOOL!

THANKS TO OUR FRIENDS

Check our website for 2018-2019 professional learning opportunities or let our curriculum experts create custom sessions at our garden or at your campus!



The Dallas Arboretum's education programs have been made possible by the generous support of our partners in education. Education Partners listed below reflect gifts received that support programming during 2018-2019:

Alliance Data The Theodore and Beulah Beasley Foundation, Inc. The Bruning Foundation Katherine C. Carmody Charitable Trust Central Market/HEB **CFP** Foundation Comerica Bank David M. Crowley Foundation **Ecolab** HKS, Inc. **Hollomon Price Foundation** The Jonesville Foundation The Philip R. Jonsson Foundation Junior League of Dallas

The Lightner Sams
Foundation, Inc.
Mayor's Intern Fellows
Program of The Dallas
Foundation
Neiman Marcus
Agnes Cluthe Oliver
Foundation
Pollock Foundation
Rupe Foundation
Sammons Enterprises
Stephen M. Seay
Foundation, Inc.
United Way

A special thanks to our presenting sponsor:

