



# Educator Resources Guide 2023

Embark on a learning adventure with your students during a field trip to The Dawes Arboretum. Choose from a variety of hands-on programs taught by our professional educators and trained naturalists or customize a self-guided trip to explore the beautiful grounds and gardens on your own.



**“Environmental Education ...** is a process that helps individuals, communities and organizations learn more about the environment, develop skills to investigate their environment and to make intelligent, informed decisions about how they can help take care of it. It has the power to transform lives and society. It informs and inspires. It motivates action. EE is a key tool in creating healthier and more civically engaged communities.” (About EE and Why it Matters <https://NAAEE.org/about-us/about-ee-and-why-it-matters>)

# Arboretum & Field Trip Guidelines

The Dawes Arboretum is an outdoor, living museum. Instead of paintings and sculptures, we curate trees, shrubs and other plants.

- Respect the plants and animals by staying on the pathways; do not climb trees.
- Removal of plant material (leaves, flowers, seeds, etc.) or animal artifacts (animals, feathers, etc.) is prohibited unless written permission is obtained in advance.
- Students must be supervised by chaperones at all times.
- Games such as Frisbee and other activities that can damage plants are prohibited.
- Please arrive on time for your scheduled trip. Allow time for traffic, parking and offloading of students. **Please note your assigned drop-off and pick-up location on page 3 and communicate that in advance to school transportation and parent chaperones.** If you are delayed, call our Visitors Center at 740.323.2355. Late arrival may result in a cancelled or abbreviated program.

## Teacher and Chaperone Expectations

Teachers and chaperones are responsible for supervising student behavior at all times. At least one teacher must accompany each group of students. Students' experiences will be enhanced by hands-on involvement from their teachers and chaperones. A ratio of one adult to eight children is strongly recommended. Additional adults over this ratio will be charged The Arboretum adult admission rate.

**Dress for the outdoors and expect to participate!**

## Reservations & Payment

Guided field trip requests may be submitted online at <https://bit.ly/DawesFieldTrip24>

A representative from the Learning & Engagement Dept. will respond to confirm your visit details.

Please have the following information available:

- Grade level of students and total number of students
- Choice of three dates and preferred arrival and departure times
- Program selections
- Facility reservation request, if applicable
- Contact phone, email and address

An invoice will be sent prior to your scheduled trip. Payment is due on the day of your trip, or may be submitted, in advance. Check, credit card and cash are accepted. Payments should be mailed or made to the cashier at the Visitors Center. Arboretum educators will not accept payment on field trip days.

## Field Trip Locations

### Main Grounds (MG)

7770 Jacksontown Rd., Newark, OH 43056

The Arboretum's main grounds are home to some of our visitors' favorite areas, including the Cypress Swamp, Japanese Garden, Zand Education Center & Learning Garden, Tripp Higgins Pond, Daweswood House Museum and much more. With numerous gardens, hiking trails, an auto tour and collections of more than 17,000 labeled trees, shrubs and perennials, there are countless opportunities to explore and learn.



### Red Barn Reserve (RB)

6903 Davis Dr., Newark, OH 43056

A natural science classroom for all ages, the Red Barn Reserve offers meadows, a wetland with boardwalk, a pond, wooded areas, hiking trails and a rustic barn for group lunches or indoor activities. Use the 1.5 miles of trails to explore the many ecosystems in this secluded area, away from The Arboretum's main grounds.



## Pricing & Capacity

Individual field trip programs are 45 minutes in length and can accommodate a maximum of 25 children. Depending on the size of your group and desired trip length, field trip visits can be designed for a minimum of one and a maximum of four concurrent programs (multiple programs must be scheduled at the same location) with a maximum of 100 students per daily visit. **Your per student field trip fee includes:** school staff and parent chaperone (1:8 students) admission to The Arboretum, Red Barn Reserve or Main Grounds shelter reservation for lunch space and/or additional self-guided activities through 2 pm on the day of your trip.

# Children	# Programs	Total Length of Program(s)	Fee
Min 15/Max 25	1	45 minutes	\$6 per child/\$90. minimum
Max 50	2	90 minutes	\$7 per child/\$105. minimum
Max 100	3-4	135 minutes	\$8 per child/\$120. minimum

*Cancellation and Weather:* A limited number of educator-led field trips are available each season. If you must cancel, prompt notification is appreciated so we may offer your spaces to someone else. Barring severe weather, field trips will be conducted rain or shine.

## Guided Field Trips (PreK- Kdg)

Programs for our youngest visitors are **opportunities to expand language and observation skills** while learning about our natural world. Skilled educators incorporate a developmentally appropriate children's book and hands-on activities in each 45-minute program. Choose from one of these themes or contact our Learning & Engagement Department at [learning@dawesarb.org](mailto:learning@dawesarb.org) for a program specially tailored for your group's needs. Dress for the weather as activities will extend outdoors whenever possible. Meeting location will be sent in your confirmation materials.

### Terrific Trees

Each program provides opportunities for students to make observations and explore a rich and diverse habitat – the forest! Children will learn the importance of trees to both humans and animal life. Some sample titles include: *Fall Leaves Fall!*, *Maple Syrup Season* (late February – early March), *The Busy Tree* and *A Tree for Me*.

### Things Grow and Change

Programs highlight the life cycles of animals both large and small. Students use simple tools to discover the variety of aquatic and terrestrial life at The Arboretum. Some sample titles include: *Waiting for Wings*, *In the Tall, Tall Grass*, *Owl Babies* and *Jump, Frog, Jump!*

### Ohio Animals

Programs help children understand the diversity of animal life in Ohio. Seasonal activity changes and nocturnal habits are explored. Some sample titles include: *Bravest of the Brave*, *Time to Sleep* and *Over in the Forest*.





## Guided Field Trips (Grades K – 2)



### **Sensory Stroll**

Seasonal sights, sounds, scents, and textures highlight this experience at The Arboretum. Students learn how living organisms survive in their environment, use their habitat for basic needs and interact with their surroundings. Led by our knowledgeable guides, this program will immerse your students in nature!

### **Bird Beak Investigation**

Student scientists engage in hands-on activities to help them explore physical traits impacting survival in birds. Manipulate tools, predict and test their effectiveness, explore beak functions and camouflage then critically apply this knowledge to real specimens and the natural world.

### **Marvelous Mammals**

The characteristics and basic needs of familiar Ohio mammals are the emphasis of this hands-on session. Discuss how animals adapt to survive the changing seasons and their dynamic physical environment. Compare mammals from long ago to those living today. Preserved specimens, replicas and active games help students understand this amazing class of animals.

### **Water Life**

Physical traits, basic needs and discovery! Students will use field guides, nets and magnification tools to explore the variety of organisms that call the water their home. In this field investigation, students explore biodiversity and interdependence in a complex and fascinating ecosystem. Learn about adults and their offspring in the aquatic world.

### **Wildlife Detectives**

Become a wildlife detective and help solve a mystery! Sometimes we do not see the wild animals that interact within our shared environment. This hands-on inquiry focuses on wildlife that commonly live in Ohio. Concentration on animal behavior, habitat needs and the role of wildlife in a larger ecosystem make this a well-rounded learning experience.

### **We All Need Trees**

How do people and animals use trees? Explore the interrelationships between diverse organisms and our trees at The Dawes Arboretum. During this active program, learn what makes a great habitat and how trees help all of nature thrive and survive. Why are trees important? Let's find out!

## Guided Field Trips (Grades 3 – 5)



### **Ecosystem Amble**

Investigate and compare plant and animal communities during this guided hike through a forest and a prairie or wetland. Make a food web and discuss how organisms acquire energy. Notice signs and cycles of wild and plant life. Learn how plants and animals are able to survive their ever-changing environment at The Dawes Arboretum.

### **All About Owls**

Soar into the world of owls as we explore their physical and behavioral traits! Learn about specialized body parts that aid in these proficient hunters' survival. Dissect owl pellets to further explore food webs and the role of these special birds in the ecosystem.

### **Tree-mendous Tree Detectives**

This creative program highlights the physical traits and survival characteristics of these amazing plants. Explore their internal and external structures and functions, life cycles and interactions within the ecosystem. Make careful observations and become a tree detective while learning about some of our 17,000 labeled plants at The Arboretum!

### **Marvelous Mammals**

Mammals have physical and behavioral characteristics that improve their chances of survival. Learn about their traits and adaptations as you study pelts and explore replica skulls. Energy flow and food webs are clarified through active learning games.

### **Water Life**

Life cycles are part of an organism's adaptation for survival. Students will use field guides, nets and magnification tools to explore the variety of organisms that call the waters of The Dawes Arboretum home. In this field investigation, students explore energy transfers and interrelationships in this complex and fascinating ecosystem.

### **Wildlife Detectives (C.S.I.)**

Become a crime scene investigator! Ask relevant questions, analyze data and use evidence to make your case in this whodunit mystery. This language art integrated program focuses on wildlife that commonly live in Ohio and their behaviors, habitat needs and the role of wildlife in a larger ecosystem.

## Guided Field Trips (Middle School)

These program offerings explore the rich cultural and historical background of The Dawes Arboretum and will further develop historical thinking in alignment with the *Ohio Academic Content Standards for Social Studies*.

### Daweswood House Museum Tour (MG)

See and hear the history behind antiques and memorabilia from the Dawes family, founders of The Arboretum. Learn about the family's rich connections to American history for over 250 years!

### Tree Dedicator Trail (MG)

Learn the tradition of tree dedications at The Arboretum as you walk the trail in search of distinguished men and women on this interactive scavenger hunt. Did you know John Glenn, Orville Wright and Rear Admiral Richard Byrd are some of our historically notable tree dedicators?

These programs incorporate 21<sup>st</sup> Century Skills and are intended to correlate with the *Ohio Learning Standards for Science*.



### Soil Sleuths

Get the dirt on soil! Use appropriate tools and analyze data, experiment with soil horizons, and discuss the components of this valuable natural resource. This introductory field investigation explores the properties of soil as students learn its significance to people and plants. 6.ESS.4

### Aquatic Study

Investigate a freshwater biome to identify aquatic organisms. Gather and interpret water quality data to assess the health of this body of water. What biotic and abiotic factors influence this dynamic ecosystem? 7.LS.2

## Guided Field Trips (High School)

Note: Utilizing The Arboretum natural areas and collections, all high school programs run 90 minutes and are conducted primarily outdoors.

### Macroinvertebrate Biodiversity Survey (Seasonal: Spring or Fall)

Get an introduction to biodiversity and its importance in a healthy, resilient ecosystem. Along with recording information about their sample site, students use dip nets to sample areas of wetlands or ponds, keeping track of the species they find. Using this data, students calculate the biodiversity index, analyze the results, and compare with data from a different habitat. B.DI.1; B.DI.2; B.DI.3; ENV.ES.1

### Phenology Hunt (Seasonal: Spring)

Students get an introduction to the concept of phenology and explore the different phenophases they may encounter in plants and animals. Following this, students will discuss potential interactions and implications of climate change on phenology and the timing of nature's cycles with a case study on spring ephemeral wildflowers and their specialist pollinators. B.DI.1; B.DI.2; B.DI.3; ENV.ES.1

## **Hands-On Conservation**

What pressures do animals face? Why do we do the work we do? Learn about some human impacts on the environment and how they affect threatened and endangered species. Then, lend a hand in restoration efforts at The Arboretum by collecting seed, removing invasive species, or wildlife monitoring. B.DI.3; ENV.ER.5

## **Unlocking Tree ID**

Discuss what defines a species and walk through a simple example of a dichotomous key. Students receive an overview of plant/leaf terminology and categories. Then, students use keys to identify native tree species and discover the importance and benefits of native tree species to the ecosystem. B.E.2; ENV.ES.1

## **Ecology Hike**

This educational hike includes topics such as the ecology of our various habitats, how organisms interact and the broader abiotic factors of the ecosystem. Discuss human impacts on the environment including the history of land use at The Arboretum and beyond, and habitat restoration efforts.

\*This hike may be adapted to best fit the educational goals of your class. Binoculars available upon request.

# **Outreach Programs**

While a visit to The Arboretum is an unforgettable experience, sometimes travel is not an option. Our outreach programs are an opportunity to bring high-quality and engaging activities to you. The following programs are available to bring to your classroom. The cost for an outreach program is \$125 for a 45-minute program for up to 25 children. Additional, consecutive sessions may be scheduled at a \$25 discount. A mileage surcharge may apply for locations more than 20 miles from The Arboretum.

## **Cold-blooded Critters**

In this eye-opening program, learn how smooth or scaly cold-blooded critters function differently than humans or other warm-blooded animals. What do they need to survive? How do they interact with their environment? Learn about their life cycles and adaptations. This program may include live animals.



## **Nature's Recyclers**

Living things cause changes on Earth. Dig into learning about nature's recyclers and their amazing impact on our world. Review worm anatomy and behavior before selecting individual worms for closer study and experimentation. Nature's Recyclers will help students see the value of decomposers in a whole new light.

## **All About Owls**

Soar into the world of owls as we explore their physical and behavioral traits! Learn about specialized body parts that aid in these proficient hunters' survival. Dissect owl pellets to further explore food webs and the role of these special birds in the ecosystem.



### Tree Factory

Through active role-playing, learn seven important structures of trees and their functions. Consider which tree parts are used by people and why a tree's trunk is like a highway. Taste an all-natural sweet treat from trees!

## Self-Guided Field Trips (All Ages)

Self-guided field trips may take place on Main Grounds or the Red Barn Reserve at any time of year (we are closed on Thanksgiving, Christmas and New Year's Day). We ask that you maintain a reasonable adult to child ratio when bringing groups. There is no discount on group child admission. Picnic shelters on Main Grounds, Red Barn Reserve or at the Dutch Fork Wetlands are available to serve as a meeting space and lunch area on a **first come, first served basis**. Wagon tours are available upon request. Call for pricing and availability at 740.323.2355

### Group Intro

An educator will meet your group when you arrive for a brief introduction to The Arboretum including our mission and purpose, behavior expectations and seasonal highlights. Included with admission but must be scheduled in advance.

### Discovery Center

Adults and children of all ages will enjoy hands-on exploration in the Discovery Center, located in the lower level of the Visitors Center. Amenities include: bird watching garden, children's reading nook, interactive displays, live animals, restrooms and drinking fountain. Appropriate for a small group of no more than 20 people at a time.

### StoryTrail™

Hop, skip, jump or walk along this unique path that combines exercise, literacy, and fun for visitors young and old. Located in the Woodland Garden on Main Grounds, this short trail is where reading comes alive in nature! StoryTrail is a perennial favorite with families and our youngest visitors.



## Other Opportunities

### Maple Syrup Trail & Tours (Seasonal, late February)

Experience this truly unique tree product. Learn about American Indians, early American pioneers, and modern-day tappers as you walk a short trail and sample this sweet treat from nature.

### Bus Tour or Open-Air Wagon Tour (Seasonal, May – October/additional fee)

A narrated tour of The Arboretum's collections from the comfort of your school bus or our open-air, covered carryall wagon. Highlights include the history of The Arboretum, notable plants and gardens and beautiful landscape views.

### Home School Programs

Home school groups may schedule field trips, provided they meet the minimum fees for a program. Additionally, we offer monthly elementary Home School Investigations (*September – April*). See our website for more information and to register.

### Scouting Outings

Cub Scout or Girl Scout troops may schedule programs to meet scouting requirements. We offer a variety of programs throughout the year and can individualize according to your troop's needs. See our website for more information.

### Professional Development for Teachers

Nature based learning is fun and beneficial to your students! Trained facilitators periodically offer professional development opportunities for educators and childcare providers. Environmental Education workshops may include: *Sensory Science* (Pre-K), *Growing Up Wild* (ages 3 – 7), *Project Wild* (grades K – 12) and *Project Learning Tree* (grades K – 12). To inquire about upcoming workshops or schedule one for your group, contact us at [learning@dawesarb.org](mailto:learning@dawesarb.org).



## Contact Us!

For more information, please reach out to us via phone, email or through our website. If you are ready to reserve your field trip, visit <https://bit.ly/DawesFieldTrip24>



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Newark, OH 43056  
[www.dawesarb.org](http://www.dawesarb.org)  
800.44.DAWES

<p>The Dawes Arboretum Field Trip Correlations to Ohio Learning Standards</p> <p>Ohio's Learning Standards for ELA are inherent to all field trips.</p>									
Grade Level	Content Standard- Life Sciences	Sensory Stroll/ Ecosystem Amble	Bird Beaks	Tree-mendous Tree Detectives	Marvelous Mammals	Water Life	Wildlife Detectives/C.S.I.	All About Owls	We All Need Trees
K.LS.1	Living things have specific characteristics and traits.	*	*		*	*	*		*
K.LS.2	Living things have physical traits and behaviors, which influence their survival.	*	*		*	*	*		*
1.LS.1	Living things have basic needs, which are met by obtaining materials from the physical environment.	*	*		*	*	*		*
1.LS.2	Living things survive only in environments that meet their needs.	*	*		*	*	*		*
2.LS.1	Living things cause changes on Earth.	*	*		*	*	*		*
2.LS.2	All organisms alive today result from their ancestors, some of which may be extinct. Not all kinds of organisms that lived in the past are represented				*				*

	by living organisms today.								
3.LS.1	Offspring resemble their parents and each other.	*		*	*	*		*	
Grade Level	Content Standard- Life Sciences	Sensory Stroll/ Ecosystem Amble	Bird Beaks	Tree-mendous Tree Detectives	Marvelous Mammals	Water Life	Wildlife Detectives/C.S.I.	All About Owls	We All Need Trees
3.LS.2	Individuals of the same kind of organism differ in their inherited traits. These differences give some individuals an advantage in surviving and/or reproducing.	*		*	*	*		*	*
3.LS.3	Plants and animals have life cycles that are part of their adaptations for survival in their natural environments.	*		*	*	*			*
4.LS.1	Changes in an organism's environment are sometimes beneficial to its survival and sometimes harmful.	*	*	*	*	*	*	*	*
4.LS.2	Fossils can be compared to one another and to			*					



	present-day organisms according to their similarities and differences.								
5.LS.1	Organisms perform a variety of roles in an ecosystem.	*		*	*	*	*	*	*
5.LS.2	All of the processes that take place within organisms require energy.	*	*	*	*	*	*	*	*