



Holden Forests & Gardens Project Opportunities for High School Students

The following high school project opportunities are designed for one to four weeks' worth of work from late **April through May 2025** with approximately 4-8 hours per day. There is some flexibility with the schedule depending on the requirements of the student's school. Students that are interested in a specific project should contact volunteer@holdenfg.org and state the project that they want (may list more than one in order of preference). If the project is still available, students will be sent instructions to apply. Students are onboarded to Holden Forests & Gardens as volunteers, and students will need to complete the orientation, application, waiver, and interview with Volunteer Resources prior to starting their project.

Projects are filled as interested students reach out and complete their applications. Students that apply early have a greater selection of projects.

Potential Risks and Hazards – Many of our placements are outdoors. With outdoor work in nature, students should be aware of the following risks:

- Exposure to weather or natural environments
- Trips, falls, uneven terrain, or poor walking conditions
- Exposure to insect bites and stings including ticks, bees, ants, and wasps
- Exposure to poisonous plants such as poison ivy

CLEVELAND BOTANICAL GARDEN

Botanical Garden Horticulture

Location: 11030 East Blvd., Cleveland

Time: Will split time amongst horticulturists. Project available Monday-Friday, 8am-3pm, April or May. Half-days or all seven hours are permitted.

Holden Forests & Gardens' [Cleveland Botanical Garden](#) campus is located in the heart of University Circle and offers both indoor and outdoor experiences through manicured gardens, specially curated glasshouses, and interior displays. Our outdoor horticulture team will be in the thick of raking, spring annual planting, removing bulbs, weeding, mulching, and tidying the gardens for emerging flora. Within the glasshouse biomes of [Costa Rica](#) and [Madagascar](#), a continual routine of watering, animal care, and plant maintenance upkeep these unique spaces. A high school intern would be exposed to a variety of these tasks both indoors and out and will experience the "flavors" of the different garden spaces under the horticulture team. Work will occur rain or shine, and necessary tools, training, and equipment will be provided for students. In the event of dangerous weather outdoors (high winds, thunderstorms), indoor work in the biomes, printing labels, or other such tasks will serve as alternatives. Other than inclement weather, potential risks include exposure to ticks and stinging/biting insects and slippery and uneven terrain.



HOLDEN ARBORETUM

Soil Ecology

Location: Holden Arboretum, 9717 Mitchell's Mill Rd, Chardon Twp

Time: Only one week in May is available for this project (week is determined by student's availability), and this project is not available for the week of May 19-23, 2025. Preferred time is 9am-3pm, Monday-Friday.

High school interns will assist the [soil ecology lab](#) with research exploring soil fungi and how changes in soil chemistry affect forest health. This will entail both lab work and field work at the Holden Arboretum. The exact number of days working in the field versus inside will be contingent on weather and status of ongoing field efforts. Work may include measurements of tree growth, processing of soil samples, and DNA-based methods to identify soil fungi. Necessary field and lab supplies will be supplied for the duration of the internship, although long pants and closed-toed shoes are required for the lab and sturdy, closed-toed shoes are required for field work. Students are responsible for bringing their own lunch and ample water.

Community Ecology

Location: Holden Arboretum, 9717 Mitchell's Mill Rd, Chardon Twp

Time: Work will include full days at the Arboretum.

High school interns will assist the [community ecology](#) team with research exploring the impacts of forest management on biodiversity and ecosystem function and/or the impacts of global climate change on spring phenology. This will entail field work at the Holden Arboretum, as well as sample processing in the lab and data entry. The exact number of days working in the field versus inside will be contingent on weather and status of ongoing field efforts. Work may include field measurements of tree growth and soil moisture, surveys of understory plants, and/or analysis of hemispherical canopy photos. Necessary field and lab supplies will be supplied for the duration of the internship. Students are responsible for bringing their own lunch and ample water.

Arboretum Horticulture

Location: Holden Arboretum, 9550 Sperry Rd, Kirtland

Time: Will split time amongst horticulturists. Project available Monday-Friday, preferred time is 7am-3:30pm, but students can help for a shorter time if necessary.

Holden Arboretum, located east of Cleveland, sprawls over an enchanting expanse of land in Lake and Geauga Counties and offers gardens, trails, lakes, and meadows. High school interns will work with horticulturists and gardeners on gardening tasks such as weeding, mulching, cutting back, planting, and more. Students will work in the [Myrtle S. Holden Wildflower Garden](#), the [Eliot and Linda Paine Rhododendron Discovery Garden](#) including the [Henry Norweb, Jr. Tree Allee](#), and/or the [Helen S. Layer Rhododendron Garden](#). Work will occur rain or shine, and necessary tools, training, and equipment will be provided for students. If it is raining lightly, students will still work outside, but if it gets heavy or is a thunderstorm, staff and students will come inside. Possible inside work would be organizing and inventorying labels, learning how to use a native plant key, and watching an informational webinar.



HOLDEN ARBORETUM (continued)

Environmental Education

Location: Holden Arboretum, 9550 Sperry Rd, Kirtland

Time: Weekday mornings, approximately 9:30am-12:30pm in April and May **if academic programs are scheduled** (Rain or Shine)

High school interns will assist instructors with academic programs scheduled on weekday mornings. These programs cover various topics, including [forests](#), [ponds](#), habitats, and [ecology](#). Interns will help engage students in educational experiences by assisting them in activities and lessons in various outdoor settings such as gardens, forests, ponds, and river habitats. This hands-on opportunity allows interns to deepen their knowledge of natural ecosystems while gaining practical experience in environmental education. Necessary training and equipment will be provided, and activities will continue rain or shine, with adjustments made for inclement weather.

Arboretum Arboriculture

Location: Holden Arboretum, 9550 Sperry Rd, Kirtland

Time: Students will split time amongst arborists. Projects available Monday - Friday, preferred time is 7am-3:30pm, but students can assist in shorter time increments as necessary.

The Holden Arboretum, located east of Cleveland, sprawls over an enchanting expanse of land in Lake and Geauga Counties, and offers gardens, trails, lakes, and meadows. If paired with the HF&G Arboriculture team, high school interns will be expected to assist with a variety of tree and land management tasks such as, tree planting, young tree establishment, tree pruning, tree understory maintenance, tree ring establishment & weeding, turf care, and trail maintenance works. Students will work in the outer Living Collection spaces, throughout our trail systems, and in the "core" garden spaces as projects require. Students should expect to potentially be exposed to ticks, poison ivy, power equipment and variable weather conditions. Work will occur rain or shine, and necessary tools, training, and equipment will be provided for students. In the event of thunder and lightning, staff and students will work inside. Possible inside work could be introductions to the following: arborist gear, chainsaw safety & maintenance, knots & ropes, tree identification practices, pruning principles, and watching informational webinars.