

# ***Our Changing Ecosystems Restoration, Climate Change, and Biodiversity, grades 9–12***

## **PROGRAM OBJECTIVES**

- Students will learn how ecological restoration increases biodiversity in managed ecosystems and how climate change influences our restoration practices.
- If a long day component is added, students will participate in the practice of land care management.

## **PROGRAM DETAILS**

**Length:** 1.5–4 hours

**Grade level:** 9–12

**Season:** All

**Student to naturalist ratio:** 15:1

## **PROGRAM ACTIVITIES**

- Collect and research ecosystem data to understand community dynamics.
- Compare restored to non-restored lands.
- Observe consequences of climate change on natural systems.
- Discuss scenarios in which weather changes can change the landscape.
- Analyze Arboretum phenological records, past and present.
- Create a systems map, identifying how parts of the system are connected.
- Remove invasive species, collect seeds, and/or seed a site (long day component).

## **STANDARDS ADDRESSED**

[Wisconsin Standards for Environmental Literacy and Sustainability](#)

ELS.EX2.B.h

ELS.EX3.B.h

ELS.EX5.B.h

ELS.EN7.C.h

[Wisconsin Standards for Science](#)

SCI.LS2.C.h

[Next Generation Science Standards](#)

HS-LS2-6

## **WORK PARTY**

- Students will participate in a land care volunteer project for 1–1.5 hours.
- A lunch or snack break will be scheduled between the learning segment and volunteer segment.

- Students must come dressed in long pants, long sleeves, and closed-toed shoes.
- Students are expected to follow all UW–Madison Arboretum safety protocols.
- The project will vary depending on the season.
- This portion of the field trip will be canceled in bad weather.
- The cost of this is the same as a two-hour field trip.
- Maximum number of students: 30.