

# Plants & People

## PLANTLAB PROGRAM OVERVIEW

### NGSS Alignment

#### DCI strands supported:

- LS4D- Biodiversity and Humans
- ESS3A - Natural Resources
- ESS3C - Human Impacts on Earth Systems
- ESS3D - Global Climate Change

Pre- and Post-visit resources include suggestions for to integrating **Science and Engineering practices** and **Crosscutting Concepts** into activities that align with this experience.

### MLS-Social Studies

- 5D - Human-Environment Interactions
- 6A - Cultural characteristics of all people.
- 6D - Cultural heritage and preservation.



## About the Program

The field of *ethnobotany* studies humanity's reliance on plants for food, materials, and medicines, both around the world and throughout history. This field is growing in importance today as we weigh the social and economic considerations that affect us as we attempt to balance human needs and desires with responsible stewardship of our natural resources and green spaces. In this program, students will practice some aspects of ethnobotanical research as they:

- **Examine artifacts** that illustrate how cultures around the world use plants to solve everyday problems, meet human needs, and support cultural identity.
- **Understand historic uses of plants** by experimenting with plant-based fiber.
- **Compare past uses of plants to present solutions** and evaluate the benefits and consequences that each solution presents.
- **Discuss values that impact decision-making** around products we buy, services we use, and practices we use as we attend to our needs and wants, and propose possible solutions that might be pursued in the future.

*This program was designed to align with the PlantLab Student Scientists initiative. For more information, call 314-577-5185.*

### Plants and Culture

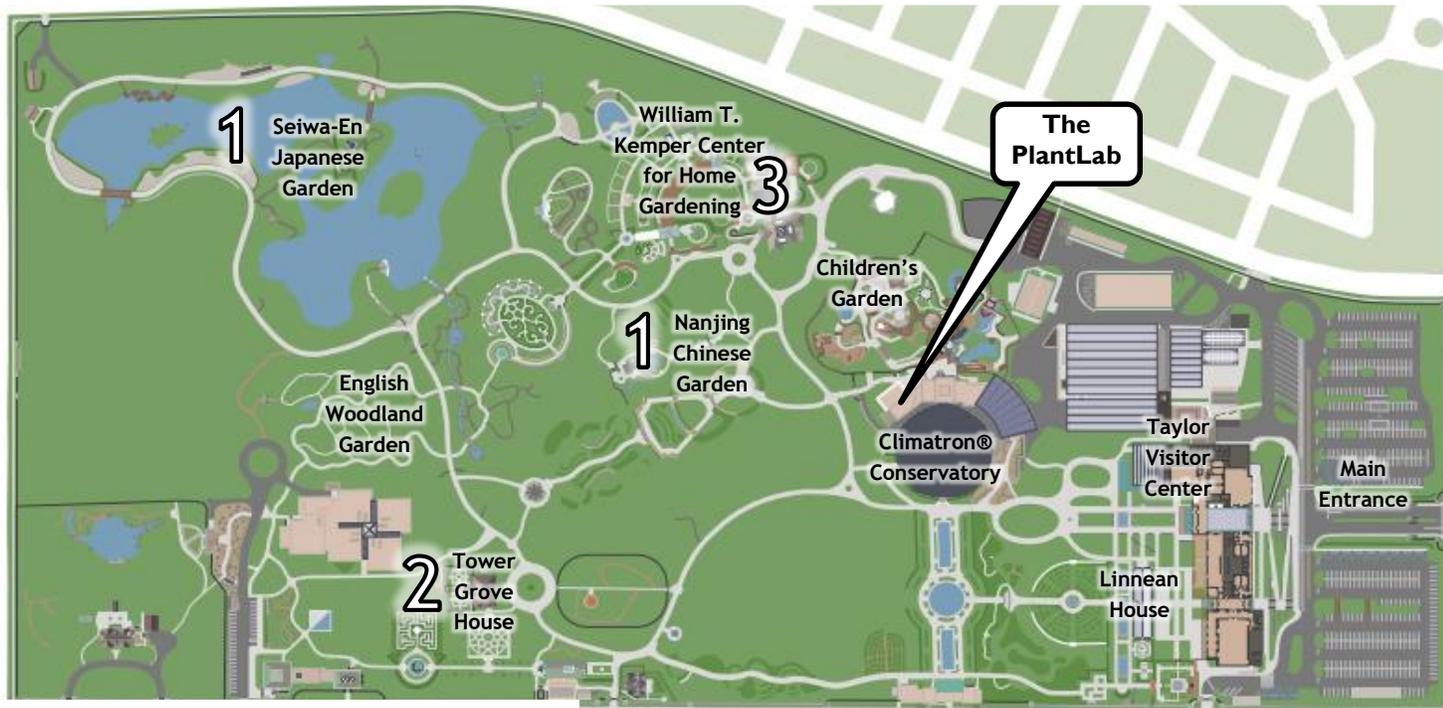
*Plants define culture. Throughout history, humans have relied on nature - mostly plants - to provide nourishment, medicine, shelter, clothing and implements that make our lives easier. As one travels the world, the most accessible and easy-to-cultivate plants in each region provide for the human culture through food flavors, architecture, tools, and clothing styles, colors, and materials. To understand a culture, one must include some study of the natural influences that shaped the lives of its people.*

*In developed countries today, much of the reliance we once had on plant materials has now shifted to reliance on plastics and other petroleum-based polymers, and innovations in agriculture and transportation now allow us to either grow or ship food plants anywhere in the world. These conventions are convenient, but we know they are ultimately unsustainable. From creation to disposal, petroleum-derived products exert a heavy toll on the natural world, and food production stands to become increasingly challenging as time goes on. Including ethnobotany in your work with students will not only help them understand the cultural importance of plants, it will also give students a perspective on how our historic practices might inform our future choices and actions in pursuit of a more sustainable way of life for all.*



# The PlantLab

Constructed in 2016, the MBG PlantLab is a unique space designed for in-depth investigations in plant science. Here, students can participate in dissections, get up close and personal with plant structures using digital microscopy, and experience firsthand what real botanists do. Located off the Brookings Exploration Center in the Edward Jones Hall, the PlantLab is convenient to the Climatron, Temperate House, and Doris I. Schnuck Children's Garden, and the William T. Kemper Center for Home Gardening.



## Other Places to Explore...

Make the most of your visit by taking your students to explore the following areas after your program:

1. **Visit our Chinese and Japanese gardens** and notice how the plants, garden elements and symbols in these spaces reflect and provide insight into the cultures upon which they were based.
2. **Visit the Herb Garden** behind Tower Grove House. This space is maintained by the St. Louis Herb Society, and is organized to show groups of herbs by their most common uses.
3. **The William T. Kemper Center for Home Gardening** - This facility-within-a-facility is an homage to home gardening in Missouri. Some 23 demonstration gardens, including a vegetable garden, wildlife-supporting native gardens, show gardens and test gardens provide lots of opportunities to talk about the plants we choose to define our local landscapes and the reasons why we might choose them.

## Logistics for Teachers

- ✿ Each program lasts **1 hour** and serves a maximum of **30 students**.
- ✿ Up to **three programs** may be booked on the same day, pending instructor availability.
- ✿ Program fees include admission for up to six adults per 30 students. (Additional adults will be charged normal admission rates.) Please try to bring at least **one adult for every five students**.
- ✿ Currently there is no lunch space available on Garden grounds, and picnicking is prohibited. Please schedule your visit and mealtimes accordingly.
- ✿ Program availability is limited! Book early!

For more information or to book this program, please visit <https://www.missouribotanicalgarden.org/learn-discover/students-teachers/school-programs-and-field-trips> or call the School Programs office at 314-577-5185.



**MISSOURI BOTANICAL GARDEN**

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